
Massachusetts Department of Public Health

Health Survey Program
Center for Health Information, Statistics, Research, and Evaluation

A Profile of Health Among Massachusetts Adults, 2002

Results from the Behavioral Risk Factor Surveillance System

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April 2004

ACKNOWLEDGEMENTS

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We wish to express our gratitude to the residents of Massachusetts who participated in this survey, and to ORC Macro, Inc. and the dedicated interviewers who helped make this survey possible. We would also like to express our gratitude to Deborah Klein Walker Ed.D., whose guidance and support when she was Associate Commissioner of the Department of Public Health were critical to the success of the Massachusetts Behavioral Risk Factor Surveillance System.

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EXECUTIVE SUMMARY

The Behavioral Risk Factor Surveillance System (BRFSS), is a random digit dial telephone survey of Massachusetts residents ages 18 years and older. The BRFSS collects information from a sample of Massachusetts residents on a wide variety of topics such as health risks, preventive health behaviors, health conditions, and emerging health issues. Massachusetts has conducted the BRFSS since 1986. In 2002, 7,429 interviews were conducted among Massachusetts adults. Highlights from the 2002 Massachusetts BRFSS are presented below.

OVERALL HEALTH MEASURES

Overall Health Status

Approximately 13% of Massachusetts adults described their overall health as fair or poor, with more Hispanic adults (27%) reporting fair or poor health than any other race-ethnicity group. Nine percent of Massachusetts adults reported 15 or more days of poor mental health during the previous month. Adults ages 18-24 (14%) reported the highest percentage of 15+ days of poor mental health.

Quality of Life

Seven percent of Massachusetts adults reported feeling sad or depressed for 15 or more days in the past month, while nearly 9% felt physical pain for 15 or more days in the past month. Eleven percent of both Black and Hispanic adults reported feeling depressed compared to White adults (7%) or Asian adults (3%).

HEALTH CARE ACCESS AND UTILIZATION

Health Care Access

Nearly 8% of Massachusetts adults ages 18-64 reported being uninsured, 10% of men and 6% of women. Younger adults (18-24 years) were the most likely to be uninsured (13%). Approximately 88% of Massachusetts adults reported having a personal health care provider, 83% of men and 91% of women. The percentage of those who reported having a personal health care provider increased with increasing age, education and income.

Dental Health Care

Overall, 77% of Massachusetts adults reported visiting the dentist in the past year. Women (80%) were more likely than men (74%) to have visited a dentist in the past year and Hispanic adults (65%) were the least likely to have visited a dentist in the past year when compared with Whites (79%), Blacks (74%), or Asians (71%). Approximately 18% of Massachusetts adults reported having six or more teeth missing due to disease or decay.

RISK FACTORS AND PREVENTIVE BEHAVIORS

Tobacco Use

Among Massachusetts adults, 19% were current smokers, and 2% were heavy smokers (smoking more than 20 cigarettes per day). Young adults (ages 18-24) were more likely to be current smokers (24%) than any other age group, but less likely to be heavy smokers (1%). Current smoking rates were only slightly different among White (19%), Black (17%), and Hispanic (21%) adults. Heavy smoking was higher among men (3%) than women (1%). White adults (2%) were more likely to be heavy smokers than both Black and Hispanic adults (1%).

Smoking Cessation

Overall, 60% of current smokers had attempted to quit during the past year and 34% were planning to quit within the next 30 days. Nearly equal percentages of Hispanic adults (61%) and White adults (60%) reported a quit attempt in the past year. Hispanic adults (47%) were more likely than White adults (32%) to report that they planned to quit smoking in the next 30 days.

Environmental Tobacco Smoke

Approximately 68% of Massachusetts adults lived in households where smoking is prohibited. Approximately 57% of adults supported a smoking ban in restaurants with Hispanic adults (72%) more likely to support a ban than Whites adults (56%), Black adults (68%), and Asian adults (46%). Adults in the Western Region (66%) of the state were more likely to support a smoking ban in restaurants than adults in other regions of the state.

Alcohol Use

Approximately 18% of Massachusetts adults reported binge drinking in the past month, while 8% reported heavy drinking in the past month. Men were almost three times more likely to report binge drinking (28%) than women (9%). Younger adults (18-24 years) were more likely to report both binge drinking (38%) and heavy drinking (13%) than adults in all other age groups.

Overweight and Obesity

Overall, 55% of Massachusetts adults were considered to be overweight, while 18% were considered to be obese. Black (65%) and Hispanic (59%) adults were more likely than White (55%) or Asian (32%) adults to be overweight. Black adults (29%) were more likely to be obese than White (18%), Hispanic (22%), and Asian (6%) adults.

Physical Activity

Overall, 79% of Massachusetts adults reported participating in some exercise over the past month, while 51% participated in regular physical activity. Black (55%) and White (52%) adults were more likely to participate in regular physical activity than Hispanic (36%) and Asian (37%) adults. The percentage of adults participating in regular physical activity increased with increasing education and income.

Fruit and Vegetable Consumption

Nearly 30% of Massachusetts adults consumed five or more servings of fruit and vegetables per day. Thirty-five percent of women reported consuming five or more servings of fruit and vegetables per day compared with 24% of men. Black adults (23%) were less likely than White (30%), Hispanic (27%), or Asian (31%) adults to report eating five or more fruit and vegetables per day. The percentage of adults consuming five or more fruit and vegetables per day increased with increasing education.

Flu Shot and Pneumonia Vaccine

Among adults ages 50-64, 39% received a flu vaccination, while among adults ages 65 and older, 73% received a flu vaccination in the past year. Among adults ages 65 and older, 63% reported ever receiving a pneumonia vaccination.

CHRONIC HEALTH CONDITIONS

Diabetes

Overall, 6% of Massachusetts adults reported having diabetes. The percentage of adults reporting diabetes increased with increasing age after age 35. The percentage of adults reporting diabetes decreased with increasing education and income. Black adults (12%) were more likely to report being diagnosed with diabetes, than both White and Hispanic adults (6%).

Asthma

Overall, 13% of Massachusetts adults reported having ever been told by a doctor that they had asthma. The percentage of adults who ever had asthma was highest among young adults, ages 18-24 (20%). Approximately 9% of Massachusetts adults reported currently having asthma. Hispanic adults were more likely to report ever having asthma (15%) and to report currently having asthma (11%) than any other race-ethnicity group.

Disability

Twenty-one percent of Massachusetts adults reported having a disability or limitation. Nearly 5% of Massachusetts adults reported that they required help with daily activities as a result of having a disability. The percentage of men and women reporting a disability were similar (20% of men, 22% of women).

CANCER SCREENING

Colorectal Cancer Screening

Overall, 38% of Massachusetts adults, ages 50 and older, reported having had a blood stool test in the past two years and 47% reported having had a sigmoidoscopy or colonoscopy in the past five years. Black adults (47%) were more likely to have had a blood stool test in the past 2 years compared to White (38%) and Hispanic (35%) adults. Black adults (49%) were also more likely to report having had a sigmoidoscopy or colonoscopy in the past five years compared to White (48%) and Hispanic (35%) adults.

Prostate Cancer Screening

Fifty-eight percent of Massachusetts men, ages 50 and older, reported having a Prostate-Specific Antigen (PSA) test in the past year and 62% reported having a digital rectal exam (DRE) in the past year. The percentage of men who had a PSA test in the past year increased with increasing age until age 79 and then decreased.

Breast Cancer Screening

Among women 40 years of age and older, 83% reported having a mammogram within the past two years. Eighty-six percent of women ages 18 and older reported having a clinical breast exam in the past two years. The percentage of women who reported having a clinical breast exam or a mammogram increased with increasing education and income.

Cervical Cancer Screening

Eighty-eight percent of Massachusetts women reported having a Pap smear in the past three years. White women (89%) were more likely to have had a Pap smear in the past three years than Black (85%), Hispanic (87%), or Asian (67%) women. The percentage of women who had a Pap smear within the past three years increased with increasing education and income.

WOMEN'S HEALTH

Calcium Intake and Osteoporosis

Overall, 42% of Massachusetts women reported consuming sufficient calcium daily. White women (44%) were more likely to report consuming sufficient amounts of calcium than Black (23%), Hispanic (33%), or Asian (27%) women. Calcium consumption increased with increasing levels of education. Overall, 17% of women ages 45 and older reported having osteoporosis. The percentage of women ages 45 and older, who reported having osteoporosis, was highest for those with a household income of less than \$25,000 (20%).

Family Planning

Among sexually active women of reproductive age (18-44) who were currently pregnant or had been pregnant in the past 5 years, 25% reported having had an unplanned pregnancy. Among sexually active women of reproductive age (18-44) approximately 85% reported using birth control. The percentage of women reporting an unplanned pregnancy, as well as the percentage of women reporting birth control use decreased with increasing age.

CHILDHOOD HEALTH

Asthma

Ten percent of children were reported to currently have asthma. The percentage of children who currently had asthma was lowest in children 0-4 years old.

Health Care Access

Approximately 1% of Massachusetts adults, who had children living in their home, reported that a child in their home did not have healthcare coverage. Children living in a household with an income less than \$35,000 were less likely to have health care coverage compared to children from households with a higher income.

Dental Sealant

Sixty-one percent of Massachusetts adults with children ages 6-17 living in their home reported that a child living in that home had dental sealant on his/her permanent teeth. Children ages 10 and older were more likely to have dental sealant on their teeth than children less than 10 years of age.

OTHER TOPICS

HIV Testing

Overall, 47% of Massachusetts adults ages 18-64 reported ever being tested for HIV. Black adults (72%) were more likely to report ever being tested for HIV than Hispanic (58%), White (45%), or Asian (34%) adults. Adults between the ages of 25-34 (63%) were most likely to report having ever been tested for HIV. Thirteen percent of Massachusetts adults reported that they had an HIV test in the past year. Black (27%) and Hispanic (24%) adults were more likely to have been tested for HIV in the past year than White (11%) or Asian (13%) adults.

Firearms

Approximately 13% of Massachusetts adults reported having firearms in or around their home. Men (18%) were more likely to report having firearms in or around their home than women (8%). White adults (14%) were more likely to report having firearms in or around their home than any other race-ethnicity group. Adults with an income above \$25,000 were more likely to report having a firearm in or around their home, than adults with an income below \$25,000.

Illicit Drug Use

Forty-eight percent of Massachusetts adults reported that they had ever used an illicit drug. White adults (51%) were more likely to report having ever used an illicit drug than Black (40%), Hispanic (35%) or Asian (15%) adults. The percentage of adults reporting having ever used an illicit drug increased with increasing income. Eight percent of Massachusetts adults reported that they had used an illicit drug in the past 30 days. Young adults, ages 18-24 (31%), reported the highest percentage of drug use in the past 30 days compared with older age groups.

Seatbelt Use

Overall, 72% of Massachusetts adults reported that they always wear seat belts when driving or riding in a car. Women (78%) were more likely to report that they always wear seatbelts than men (65%). Young adults, ages 18-24 (66%) were least likely to report that they always wear a seatbelt compared with older age groups. Asian adults (83%) were more likely than Hispanic (74%), White (72%), or Black (61%) adults to report always wearing a seatbelt when driving or riding in a car.

Sexual Assault

Overall, 23% of women and 7% of men, ages 18-59, reported having been sexually assaulted. Women with any college education were more likely than women without any college education to report having ever been sexually assaulted.

INTRODUCTION

WHAT IS THE BRFSS?

The Behavioral Risk Factor Surveillance System (BRFSS) is a continuous, random-digit-dial, telephone survey of adults ages 18 and older, and is conducted in all states as a collaboration between the Centers for Disease Control and Prevention (CDC) and state departments of health. The survey has been in the field in Massachusetts since 1986. The BRFSS collects data on a variety of health characteristics, risk factors, preventive behaviors, chronic illnesses, and emerging health issues. The information obtained in this survey assists in identifying the need for health interventions, monitoring the effectiveness of existing interventions and prevention programs, developing health policy and legislation, and measuring progress toward attaining state and national health objectives.

BRFSS collects data on a variety of health characteristics, risk factors for chronic conditions, and preventive behaviors.

Each year, the BRFSS includes a core set of questions developed by the CDC. In 2002, these questions pertained to health status, health care access and utilization, exercise, fruit and vegetable consumption, asthma, diabetes, oral health, immunizations, tobacco use, alcohol consumption, seat belt use, family planning, women's health, prostate and colorectal cancer screening, children's health, HIV/AIDS, and Firearm possession. In addition to the core CDC questions, the Massachusetts BRFSS added a number of topics including environmental tobacco exposure, disability and quality of life, alcohol and drug awareness and treatment, bioterrorism, depression, and many more topics.

ABOUT THIS REPORT

This report summarizes selected results from the 2002 Massachusetts BRFSS. First, we provide a description of survey questions and analyses used for key variables. In addition, overall percentage estimates of these variables are presented, along with key findings of interest. Where possible, we provide figures comparing 2002 results to previous years' data for variables that have been measured over several years. This practice allows us to assess trends in specific characteristics over time.

We also provide a table detailing the overall estimates and estimates by demographic characteristics (gender, age, race-ethnicity, education, household income, and Massachusetts regions). Crude rates and age-adjusted rates and their 95% confidence intervals are also presented in this same table. The crude rate is the weighted proportion of respondents in a particular category. Age adjustment is done in order to eliminate differences in the age distribution when comparing different geographies (ie., a community rate compared with the statewide rate) or across time (ie., Massachusetts in 1990 compared to Massachusetts in 2002). Readers may wish to use the crude rate to make general statements about the magnitude of an event, and use the age-adjusted rate when comparing different rates. Please note that the crude rate for a specific age group is also known as the "age-specific" rate.

Race-ethnicity categories in this report include White, Black, Hispanic, and Asian. When referring to White, Black, or Asian, these categories include only non-Hispanic respondents. All respondents reporting Hispanic ethnicity are included in the Hispanic category.

Statistical significance testing was not conducted to establish significant differences between groups. References to increases or decreases in rates refer to variations in data and not to the statistical significance of these variations. The reader might note that non-overlapping confidence

intervals indicate statistical significance, but overlapping confidence intervals do not necessarily indicate that differences are not statistically significant.

BRFSS data are weighted to reflect both the probability that an individual was selected to participate in the survey and the differential participation by sex and age. There may be slight differences in estimates or rankings between this report and previous publications due to different weighting methods.

In the Appendix, whenever possible, we provide a comparison of Massachusetts results to national data and Healthy People 2010 Objectives.* For national comparisons, we provide the median percentage and the range of estimates for all fifty states, the District of Columbia, and Puerto Rico using the weighted crude weight. We also provide a ranking of Massachusetts relative to other states, although this ranking does not take into account the degree of uncertainty of the estimates within each state due to random sampling variation. Rankings are based on the lowest risk or healthiest behavior, so that a rank of 1st = best and 52nd = worst.

This report provides estimates for 2002 data, compares our state with U.S. data and Healthy People 2010 Objectives, and highlights comparisons of interest.

* See Technical Notes, page 91

DEMOGRAPHIC PROFILE OF MASSACHUSETTS BRFSS SURVEY RESPONDENTS

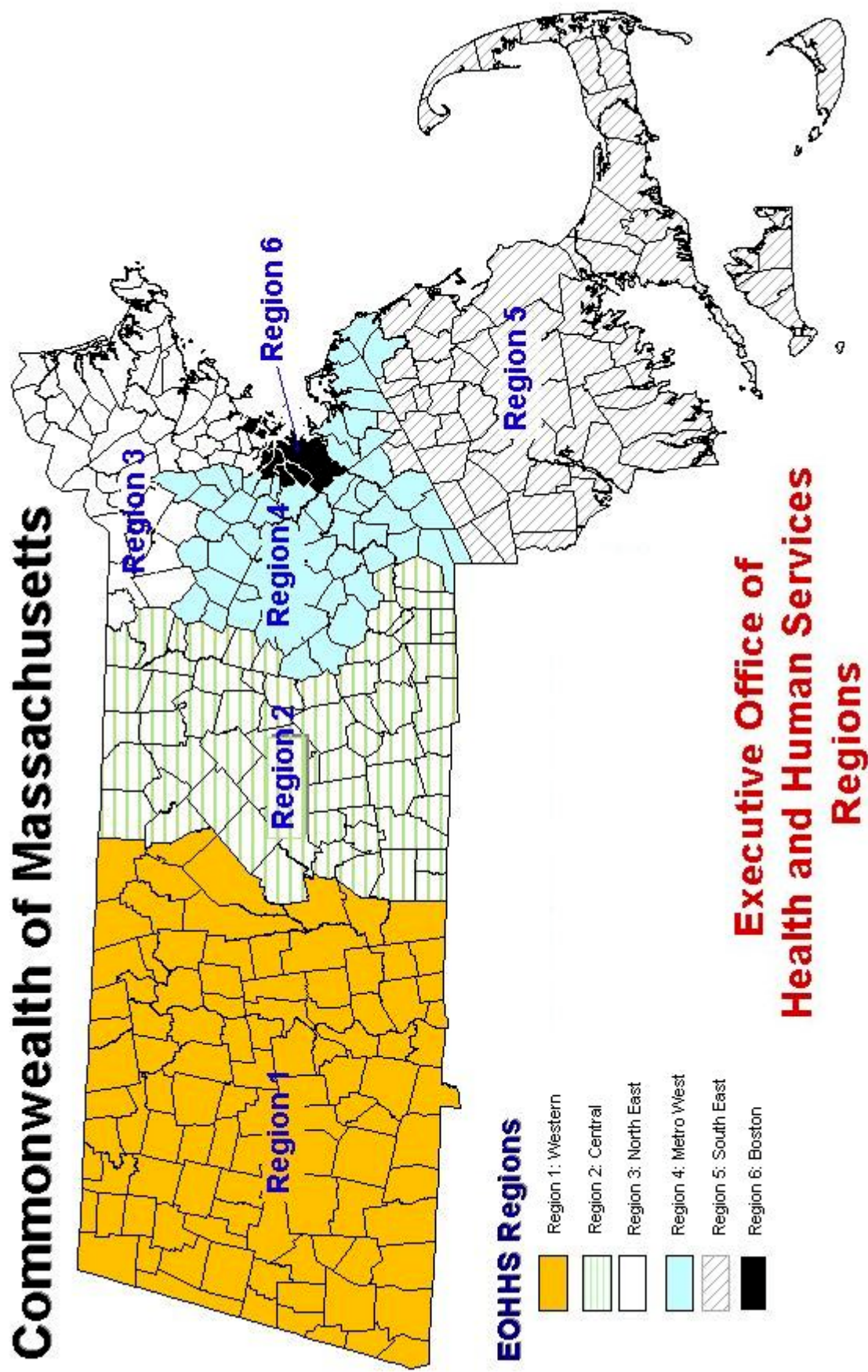
DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS IN THE MASSACHUSETTS BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM, 2002		
	UNWEIGHTED SAMPLE SIZE* N	WEIGHTED** PERCENT (%)
OVERALL	7,429	100.0
GENDER		
MALE	2,993	47.1
FEMALE	4,436	52.9
AGE GROUP		
18–24	556	12.3
25–34	1,373	18.6
35–44	1,644	21.3
45–54	1,429	18.0
55–64	920	12.2
65–74	744	9.9
75 AND OLDER	663	7.8
RACE-ETHNICITY***		
WHITE	6,048	83.8
BLACK	345	3.5
HISPANIC	645	8.0
ASIAN	202	3.1
OTHER	120	1.5
EDUCATION		
< HIGH SCHOOL	711	8.8
HIGH SCHOOL	1,937	26.3
COLLEGE 1–3 YRS	1,759	24.8
COLLEGE 4+ YRS	2,998	40.0
HOUSEHOLD INCOME		
<\$25,000	1,606	21.4
\$25–34,999	764	11.7
\$35–49,999	1,017	15.8
\$50–74,999	1,149	19.6
\$75,000+	1,739	31.5
REGION		
I–WESTERN	1,128	13.7
II–CENTRAL	1,141	13.9
III–NORTH EAST	1,379	19.5
IV–METRO WEST	1,245	22.6
V–SOUTH EAST	1,412	19.7
VI–BOSTON	1,124	10.6

* Numbers may not total due to missing data.

** See BRFSS Methodology in Appendix.

*** White, Black and Asian race categories refer to non-Hispanic.

Commonwealth of Massachusetts



SECTION 1: OVERALL HEALTH MEASURES

Section 1.1: Overall Health Status

Respondents were asked to describe their health as excellent, very good, good, fair, or poor. Presented here are the percentages of adults who reported that their health was fair or poor.

Respondents were asked for how many days during the past month they would describe their mental health as not good. Mental health includes stress, depression, and problems with emotion. The percentage of adults who reported 15 or more days of poor mental health is reported.

FAIR OR POOR HEALTH (Table 1.1)

- 13% of Massachusetts adults described their overall health status as fair or poor
- The percentage of adults who reported fair or poor health increased with increasing age
- Hispanic adults were more than twice as likely to report fair or poor health than any other race-ethnicity group
- The percentage of adults reporting fair or poor health decreased with increasing levels of education and income
- Those living in the Metro West region were least likely to report fair or poor health
- The trend in the percentage of adults reporting fair or poor health has remained relatively stable over time (Figure 1.1)

15+ POOR MENTAL HEALTH DAYS IN PAST MONTH (Table 1.1)

- 9% of Massachusetts adults reported experiencing 15 or more days of poor mental health in the past month
- Women were more likely than men to report 15 or more days of poor mental health in the past month
- Asian adults were less likely than all other race-ethnicity groups to report 15 or more days of poor mental health in the past month
- Adults in the lowest education and income groups were the most likely to report 15 or more days of poor mental health in the past month

Figure 1.1: Trend in the percentage of Massachusetts adults with fair or poor health, 1993 - 2002

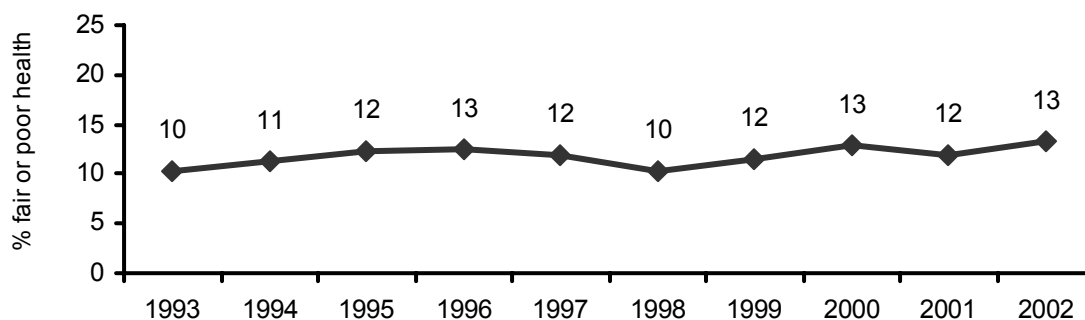


TABLE 1.1 – HEALTH STATUS AMONG MASSACHUSETTS ADULTS, 2002

	FAIR OR POOR HEALTH			15+ POOR MENTAL HEALTH DAYS		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	13.3	13.2 (12.2-14.1)		9.2	9.4 (8.5-10.2)	
GENDER						
MALE	12.5	12.9 (11.4-14.4)		7.2	7.2 (6.1 - 8.4)	
FEMALE	14.0	13.4 (12.2-14.6)		11.0	11.3 (10.0-12.6)	
AGE GROUP						
18–24	5.6	(3.4 - 7.8)*		14.2	(10.5-17.9)*	
25–34	6.6	(4.7 - 8.4)*		8.3	(6.3-10.2)*	
35–44	10.9	(8.9-12.9)*		8.8	(7.0-10.5)*	
45–54	13.0	(10.9-15.1)*		11.5	(9.4-13.6)*	
55–64	15.7	(12.9-18.6)*		9.3	(6.9-11.8)*	
65–74	21.2	(17.6-24.9)*		5.4	(3.6 - 7.3)*	
75 AND OLDER	34.7	(30.3-39.2)*		5.3	(3.2 - 7.4)*	
RACE-ETHNICITY**						
WHITE	12.0	11.2 (10.3-12.3)		9.2	9.4 (8.4-10.4)	
BLACK	12.3	14.5 (10.0-19.1)		10.6	10.3 (6.1-14.5)	
HISPANIC	27.0	37.1 (31.5-42.6)		9.2	9.2 (6.5-11.9)	
ASIAN	8.3	10.9 (3.1-18.7)		4.7	7.5 (2.6-19.8)	
EDUCATION						
< HIGH SCHOOL	36.7	36.4 (31.6-41.2)		14.1	15.7 (11.6-19.8)	
HIGH SCHOOL	16.6	15.6 (13.7-17.5)		9.4	9.9 (8.1-11.7)	
COLLEGE 1–3 YRS	10.9	11.3 (9.6-13.0)		11.5	11.3 (9.3-13.2)	
COLLEGE 4+ YRS	7.3	7.8 (6.4 - 9.1)		6.8	7.2 (5.8 - 8.5)	
HOUSEHOLD INCOME						
<\$25,000	29.5	30.4 (27.4-33.4)		14.6	17.5 (14.9-20.1)	
\$25–34,999	14.4	14.3 (11.1-17.5)		9.1	8.8 (6.4-11.2)	
\$35–49,999	9.7	9.7 (7.3-12.1)		9.5	9.6 (7.1-12.1)	
\$50–74,999	8.2	8.4 (6.2-10.7)		8.3	8.0 (5.6-10.4)	
\$75,000+	3.9	5.5 (3.8 - 7.3)		6.3	6.0 (4.5 - 7.5)	
REGION						
I–WESTERN	14.5	14.4 (11.9-16.8)		10.5	10.7 (8.1-13.2)	
II–CENTRAL	12.0	11.8 (9.5-14.1)		8.2	8.1 (6.1-10.1)	
III–NORTH EAST	14.5	15.0 (12.7-17.2)		8.3	8.4 (6.5-10.3)	
IV–METRO WEST	10.6	10.1 (8.1-12.1)		7.6	8.1 (6.0-10.2)	
V–SOUTH EAST	14.7	13.9 (11.8-16.1)		12.0	12.3 (10.0-14.7)	
VI–BOSTON	14.1	17.1 (14.1-20.1)		9.0	9.6 (7.6-11.7)	

* Confidence interval presented is for the crude (age specific) rate in the previous column.

** White, Black and Asian race categories refer to non-Hispanic.

Section 1.2: Quality of Life

All respondents were asked to report the number of days that they had felt sad, blue, or depressed during the past month. Presented here is the percentage of respondents who reported that they felt sad, blue, or depressed for at least 15 days of the month.

All respondents were asked to report the number of days during the past month that pain made it difficult for them to take part in their usual activities such as self-care, work, or recreation. The percentage of adults who reported that pain had made it difficult for them to participate in their usual activities for 15 or more days of the month is presented.

15+ DAYS DEPRESSED (Tables 1.2)

- 7% of Massachusetts adults reported feeling sad or depressed for 15 or more days in the past month
- Women were more likely than men to have felt sad or depressed for 15 or more days in the past month
- Respondents ages 18-24 were more likely than those in older age groups to have felt sad or depressed for 15 or more days in the past month
- Black and Hispanic adults were more likely to have felt sad or depressed for 15 or more days in the past month than were White or Asian adults
- The percentage of adults who felt sad or depressed for 15 or more days in the past month decreased with increasing education and income
- The trend in the percentage of adults who felt sad or depressed for 15 or more days in the past month has remained relatively stable over the past 5 years (Figure 1.2)

15+ DAYS IN PAIN (Table 1.2)

- 9% of Massachusetts adults reported that pain had made it difficult for them to participate in their usual activities for 15 or more days over the past month
- Women were more likely to have experienced 15 or more days in pain over the past month than men
- White adults were more likely to have experienced 15 or more days in pain over the past month than adults in other race-ethnicity groups
- The percentage of adults reporting pain for 15 or more days in the past month decreased with increasing education

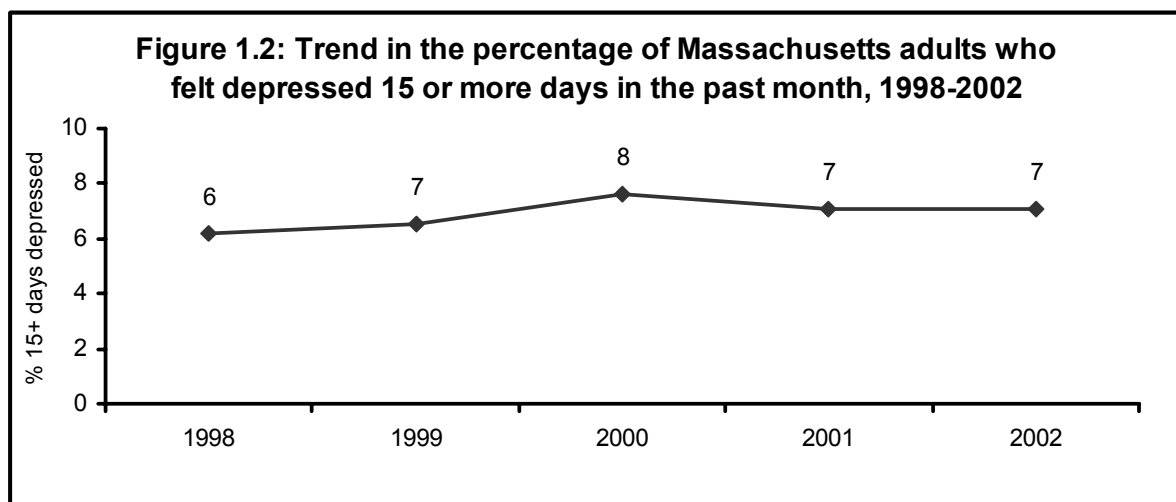


TABLE 1.2 – QUALITY OF LIFE AMONG MASSACHUSETTS ADULTS, 2002

	15+ DAYS DEPRESSED			15+ DAYS IN PAIN		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	7.1	7.1 (6.4 - 7.9)		8.6	8.6 (7.8 - 9.4)	
GENDER						
MALE	5.5	5.6 (4.5 - 6.6)		7.1	7.3 (6.1 - 8.4)	
FEMALE	8.4	8.6 (7.5 - 9.7)		10.0	9.8 (8.7-10.8)	
AGE GROUP						
18–24	10.9	(7.6-14.3)*		2.9	(1.3 - 4.5)*	
25–34	5.8	(4.4 - 7.2)*		3.4	(2.3 - 4.5)*	
35–44	6.0	(4.6 - 7.4)*		6.6	(5.1 - 8.1)*	
45–54	7.9	(6.2 - 9.6)*		11.5	(9.4-13.6)*	
55–64	7.6	(5.3 - 9.8)*		12.5	(9.7-15.3)*	
65–74	5.6	(3.4 - 7.9)*		12.9	(10.0-15.9)*	
75 AND OLDER	6.7	(4.5 - 8.8)*		18.8	(14.9-22.6)*	
RACE-ETHNICITY**						
WHITE	6.6	6.7 (5.9 - 7.6)		9.1	8.7 (7.8 - 9.6)	
BLACK	10.9	10.3 (6.0-14.7)		5.4	6.3 (3.1 - 9.5)	
HISPANIC	10.9	9.6 (7.1-12.2)		6.8	8.1 (5.2-11.1)	
ASIAN	3.4	4.2 (1.1-14.3)		3.0	6.3 (1.8-19.5)	
EDUCATION						
< HIGH SCHOOL	13.0	14.3 (10.7-17.8)		14.6	15.4 (11.2-19.7)	
HIGH SCHOOL	8.2	8.4 (6.7-10.0)		10.2	9.6 (8.0-11.1)	
COLLEGE 1–3 YRS	7.8	7.9 (6.3 - 9.4)		9.1	9.3 (7.7-11.0)	
COLLEGE 4+ YRS	4.6	5.0 (3.9 - 6.1)		6.2	6.6 (5.5 - 7.8)	
HOUSEHOLD INCOME						
<\$25,000	13.6	16.1 (13.5-18.6)		16.3	17.0 (14.6-19.5)	
\$25–34,999	7.9	7.7 (5.4-10.0)		9.7	9.6 (7.0-12.1)	
\$35–49,999	6.8	6.8 (4.7 - 9.0)		6.5	6.5 (4.8 - 8.3)	
\$50–74,999	4.3	4.7 (2.7 - 6.6)		8.6	8.4 (6.1-10.7)	
\$75,000+	3.6	3.7 (2.4 - 5.1)		4.5	5.8 (4.1 - 7.5)	
REGION						
I–WESTERN	9.2	9.2 (6.8-11.6)		11.4	11.4 (9.0-13.8)	
II–CENTRAL	5.4	5.5 (3.8 - 7.2)		7.5	7.4 (5.6 - 9.3)	
III–NORTH EAST	6.3	6.5 (4.8 - 8.1)		8.8	8.9 (6.9-10.9)	
IV–METRO WEST	5.9	6.2 (4.4 - 7.9)		7.0	7.0 (5.4 - 8.5)	
V–SOUTH EAST	8.3	8.3 (6.4-10.2)		10.5	9.6 (7.9-11.3)	
VI–BOSTON	8.1	8.5 (6.4-10.5)		6.3	8.6 (6.3-10.8)	

* Confidence interval presented is for the crude (age specific) rate in the previous column.

** White, Black and Asian race categories refer to non-Hispanic.

SECTION 2: HEALTH CARE ACCESS AND UTILIZATION

Section 2.1: Health Care Access

All respondents were asked if they had any type of health care coverage. Those who indicated that they had no coverage were asked a follow-up question to be certain that they had considered all types of health care coverage.* This included health care coverage from their employer or someone else's employer, a plan that they had bought on their own, Medicare, MassHealth, and coverage through the military, or the Indian Health Service. Given that adults over the age of 65 are eligible for Medicare, this analysis is restricted to adults ages 18-64.

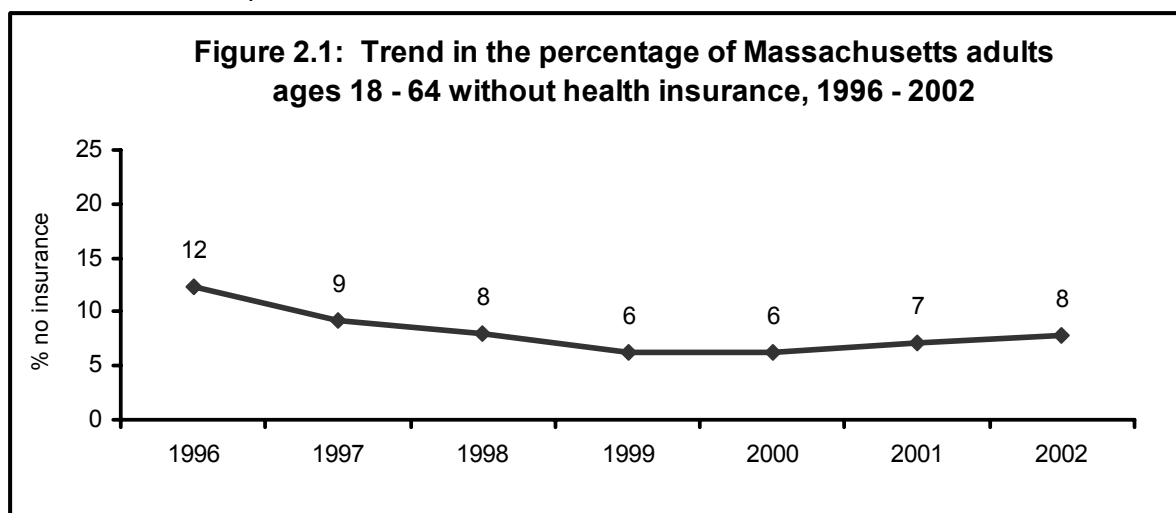
Respondents were also asked if they had a doctor that they thought of as their personal doctor or health care provider.

NO HEALTH INSURANCE, AGES 18-64 (Table 2.1)

- 8% of Massachusetts adults reported currently being uninsured
- More men than women were uninsured
- Adults ages 18-34 were more likely to be uninsured than those in older age groups
- White adults were more likely to have health insurance than all other race-ethnicity groups
- The percentage of adults reporting no health insurance coverage decreased with increasing education and income
- Respondents living in the Boston region and the South East region of the state were more likely than respondents living in other regions of the state to be uninsured
- From 1996 – 2000 the percentage of adults ages 18-64 with no health insurance decreased from 12% to 6%; the trend has fluctuated upward since 2001 (Figure 2.1)

HAVE PERSONAL HEALTH CARE PROVIDER (Table 2.1)

- 88% of Massachusetts adults reported having someone whom they thought of as their personal doctor or health care provider
- Women were more likely than men to have a personal health care provider
- The percentage of Massachusetts adults reporting that they had a personal health care provider increased with increasing age, education, and income
- Hispanic adults were less likely to have a personal health care provider than other race-ethnicity groups
- Respondents living in the Boston region were less likely than those in other regions of the state to have a personal doctor



* Please note that CDC estimates of uninsured adults, based solely upon the CDC core health insurance question may differ from estimates derived from the Massachusetts BRFSS. The Massachusetts BRFSS includes a follow-up question to ensure that respondents consider all possible types of health insurance coverage; the addition of this follow-up question leads to differences between CDC and Massachusetts BRFSS estimates.

TABLE 2.1 – HEALTH CARE ACCESS AMONG MASSACHUSETTS ADULTS, 2002

	NO HEALTH INSURANCE, AGES 18-64			HAVE PERSONAL HEALTH CARE PROVIDER		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	7.8	7.9 (7.0 - 8.8)		87.5	87.3 (86.3-88.3)	
GENDER						
MALE	9.9	9.9 (8.4-11.4)		83.2	83.4 (81.7-85.0)	
FEMALE	5.9	5.9 (4.9 - 6.9)		91.3	91.1 (89.9-92.2)	
AGE GROUP						
18–24	12.5	(9.1-15.9)*		72.5	(67.8-77.3)*	
25–34	10.6	(8.6-12.7)*		79.6	(76.8-82.4)*	
35–44	5.4	(4.0 - 6.7)*		88.6	(86.7-90.4)*	
45–54	7.0	(5.3 - 8.7)*		92.3	(90.7-93.9)*	
55–64	4.5	(2.8 - 6.3)*		93.4	(91.5-95.3)*	
65–74				94.8	(92.8-96.9)*	
75 AND OLDER				96.6	(95.1-98.1)*	
RACE-ETHNICITY**						
WHITE	5.9	6.0 (5.1 - 6.9)		89.8	89.1 (88.1-90.2)	
BLACK	11.7	11.5 (6.9-16.1)		82.1	82.2 (76.8-87.6)	
HISPANIC	21.8	20.7 (15.5-25.9)		70.2	74.5 (69.2-79.7)	
ASIAN	9.9	14.2 (4.8-23.5)		78.0	78.9 (70.2-87.6)	
EDUCATION						
< HIGH SCHOOL	20.4	20.5 (15.4-25.7)		78.4	76.3 (71.9-80.6)	
HIGH SCHOOL	10.3	10.4 (8.3-12.5)		87.0	86.2 (84.2-88.2)	
COLLEGE 1–3 YRS	6.9	6.8 (5.3 - 8.2)		88.9	89.1 (87.3-90.9)	
COLLEGE 4+ YRS	4.8	5.0 (3.8 - 6.2)		89.1	88.4 (86.8-90.1)	
HOUSEHOLD INCOME						
<\$25,000	17.8	18.5 (15.3-21.8)		82.4	81.2 (78.4-83.9)	
\$25–34,999	12.0	11.8 (8.7-15.0)		83.4	82.9 (79.4-86.4)	
\$35–49,999	6.0	5.8 (3.8 - 7.7)		88.1	88.4 (85.9-91.0)	
\$50–74,999	3.6	3.5 (2.1 - 4.9)		88.9	89.1 (86.5-91.6)	
\$75,000+	2.7	3.5 (1.6 - 5.4)		92.3	92.6 (90.9-94.3)	
REGION						
I–WESTERN	9.0	8.9 (6.4-11.4)		87.7	87.4 (84.7-90.0)	
II–CENTRAL	5.3	5.6 (3.7 - 7.4)		90.3	89.8 (87.3-92.3)	
III–NORTH EAST	7.6	7.5 (5.7 - 9.4)		85.4	85.6 (83.1-88.1)	
IV–METRO WEST	5.1	5.0 (3.2 - 6.9)		90.1	89.6 (87.6-91.7)	
V–SOUTH EAST	10.3	11.0 (8.6-13.5)		88.1	86.9 (84.6-89.3)	
VI–BOSTON	11.3	10.5 (7.3-13.6)		80.6	84.0 (81.2-86.8)	

* Confidence interval presented is for the crude (age specific) rate in the previous column.

** White, Black and Asian race categories refer to non-Hispanic.

Section 2.2: Dental Health Care

All respondents were asked how long it had been since they had last visited a dentist or dental clinic. The percent of respondents reporting that they had been to a dentist or dental clinic within the past year is reported here. The percentage reported here indicates only that the respondent reported having visited a dentist or dental clinic. The wording of the question did not differentiate between a routine cleaning and other types of dental work.

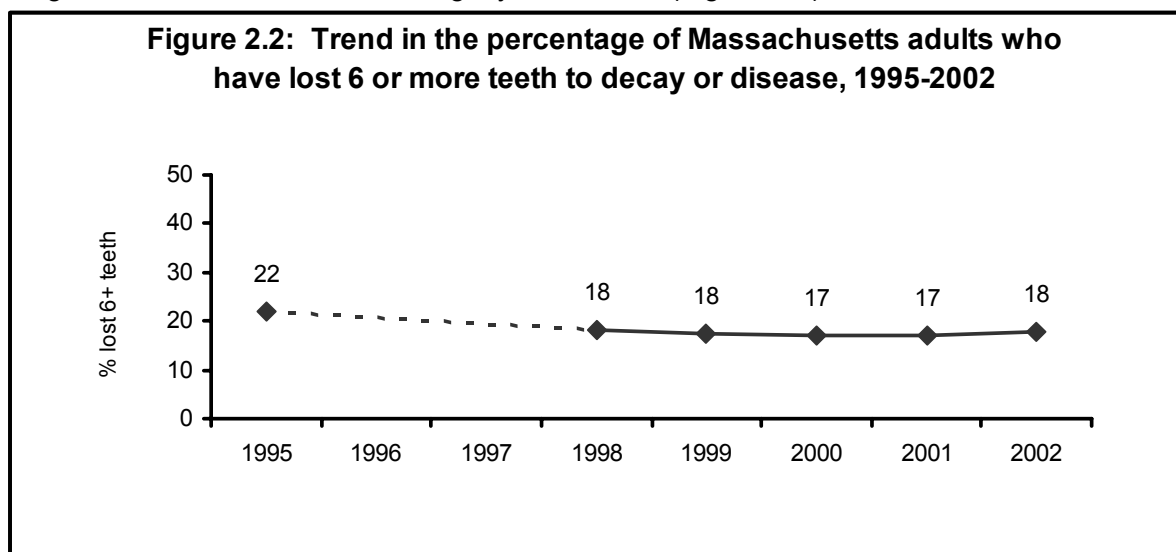
All respondents were asked how many of their teeth were missing due to decay or gum disease only. The number of teeth missing due to injury or orthodontic purposes is not included.

DENTAL VISIT IN PAST YEAR (Table 2.2)

- 77% of Massachusetts adults reported that they had been to a dentist or dental clinic in the past year
- Women were more likely than men to have been to the dentist or a dental clinic in the past year
- White adults were more likely than adults in any other race-ethnicity group to have been to the dentist or a dental clinic in the past year
- The percentage of adults who had been to the dentist or a dental clinic in the past year increased with increasing education and income
- Respondents in the Western region of the state were less likely than those living in other regions of the state to have been to the dentist in the past year

SIX OR MORE TEETH MISSING DUE TO DECAY (Table 2.2)

- 18% of Massachusetts adults reported having six or more teeth missing due to decay or gum disease
- The percentage of adults with six or more teeth missing due to decay or gum disease decreased with increasing education and income
- Those in the Western and South East regions of the state were most likely to report having six or more teeth missing due to decay or gum disease
- The percentage of Massachusetts adults who have lost 6 or more teeth due to decay or gum disease has decreased slightly since 1995 (Figure 2.2)



Note: Dotted line signifies year in which question was not asked.

TABLE 2.2 – DENTAL HEALTH CARE AMONG MASSACHUSETTS ADULTS, 2002

	DENTAL VISIT IN PAST YEAR			6 OR MORE TEETH MISSING		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	77.3	77.3	(76.1-78.5)	17.7	17.5	(16.6-18.5)
GENDER						
MALE	74.2	74.0	(72.0-76.0)	16.8	18.0	(16.5-19.4)
FEMALE	80.1	80.4	(79.0-81.9)	18.4	17.3	(16.1-18.5)
AGE GROUP						
18–24	76.9		(72.5-81.4)*	1.2		(0.0 - 2.4)*
25–34	76.2		(73.2-79.1)*	2.9		(1.8 - 4.0)*
35–44	79.1		(76.6-81.6)*	6.8		(5.1 - 8.5)*
45–54	82.5		(80.0-85.0)*	15.6		(13.3-18.0)*
55–64	80.9		(77.9-83.9)*	31.4		(27.8-35.0)*
65–74	71.1		(67.1-75.0)*	47.5		(43.0-51.9)*
75 AND OLDER	65.2		(60.8-69.6)*	56.9		(52.1-61.7)*
RACE-ETHNICITY**						
WHITE	78.9	79.0	(77.7-80.4)	18.2	16.7	(15.7-17.6)
BLACK	74.1	70.4	(63.7-77.1)	13.5	18.4	(13.2-23.5)
HISPANIC	65.3	60.7	(55.3-66.1)	18.3	30.3	(26.6-34.1)
ASIAN	71.1	75.5	(66.4-84.6)	†	†	--
EDUCATION						
< HIGH SCHOOL	53.7	54.8	(49.6-60.0)	40.8	36.7	(32.0-41.3)
HIGH SCHOOL	71.4	72.2	(69.5-74.8)	26.4	23.6	(21.6-25.5)
COLLEGE 1–3 YRS	78.9	78.9	(76.5-81.3)	15.5	16.6	(14.6-18.6)
COLLEGE 4+ YRS	85.4	85.5	(83.9-87.1)	8.3	9.6	(8.4-10.9)
HOUSEHOLD INCOME						
<\$25,000	62.6	63.6	(60.3-66.9)	32.3	29.7	(26.9-32.5)
\$25–34,999	71.4	70.9	(66.7-75.1)	22.4	20.2	(17.2-23.2)
\$35–49,999	77.0	77.4	(74.0-80.7)	18.3	18.9	(16.2-21.6)
\$50–74,999	80.8	80.4	(77.2-83.7)	13.0	15.1	(12.5-17.7)
\$75,000+	88.7	88.3	(85.9-90.7)	6.7	9.3	(7.2-11.4)
REGION						
I–WESTERN	72.9	72.9	(69.3-76.4)	22.6	21.6	(19.1-24.1)
II–CENTRAL	76.9	76.5	(73.2-79.8)	17.9	17.7	(15.1-20.3)
III–NORTH EAST	78.0	77.9	(75.1-80.6)	16.0	16.7	(14.5-18.9)
IV–METRO WEST	81.8	81.7	(79.0-84.4)	15.1	14.3	(12.3-16.2)
V–SOUTH EAST	74.9	75.2	(72.2-78.1)	22.5	19.7	(17.6-21.8)
VI–BOSTON	77.3	76.2	(72.9-79.4)	10.7	15.4	(12.7-18.0)

* Confidence interval presented is for the crude (age specific) rate in the previous column.

** White, Black and Asian race categories refer to non-Hispanic.

† Insufficient numbers.

SECTION 3: RISK FACTORS AND PREVENTIVE BEHAVIORS

Section 3.1: Tobacco Use

A current smoker was defined as someone who smoked at least 100 cigarettes in their lifetime and currently smoked either some days or everyday. A current smoker who reported smoking 21 or more cigarettes per day was defined as a heavy smoker.

CURRENT SMOKER (Table 3.1)

- 19% of Massachusetts adults were current smokers
- Current smoking decreased with increasing age, education, and income
- Current smoking was lowest in the Metro West region, and highest in the Boston region
- Hispanic adults were the most likely to be current smokers
- The percentage of adults who currently smoke has decreased since 1986 (Figure 3.1)

HEAVY SMOKER (Table 3.1)

- 2% of Massachusetts adults were heavy smokers
- Men were twice as likely as women to be heavy smokers
- White adults were more likely to be heavy smokers than adults in any other race-ethnicity group
- Heavy smoking was lowest among those with the highest levels of education and income
- Adults living in the Metro West and Boston regions of the state were less likely to be heavy smokers than adults living in other regions of the state

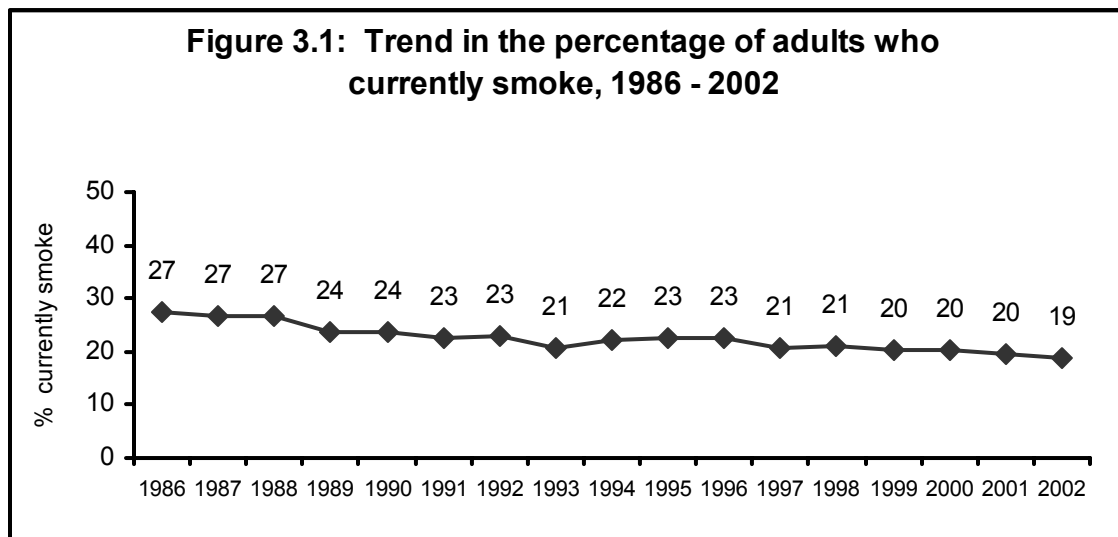


TABLE 3.1 – TOBACCO USE AMONG MASSACHUSETTS ADULTS, 2002

	CURRENT SMOKER			HEAVY SMOKER		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	18.9	19.1 (18.0-20.3)		2.2	2.2 (1.8-2.6)	
GENDER						
MALE	20.1	19.9 (18.1-21.7)		3.1	3.0 (2.3-3.8)	
FEMALE	17.9	18.4 (17.0-19.9)		1.4	1.4 (1.0-1.9)	
AGE GROUP						
18–24	24.2	(19.7-28.7)*		0.8	(0.0-1.7)*	
25–34	22.7	(19.8-25.5)*		1.8	(0.8-2.8)*	
35–44	21.9	(19.5-24.4)*		2.7	(1.7-3.7)*	
45–54	19.7	(17.0-22.3)*		3.2	(2.1-4.3)*	
55–64	17.3	(14.4-20.3)*		3.8	(2.3-5.2)*	
65–74	12.0	(9.3-14.8)*		1.1	(0.3-1.9)*	
75 AND OLDER	4.3	(2.6 - 6.0)*		0.3	(0.0-0.8)*	
RACE-ETHNICITY**						
WHITE	19.0	19.7 (18.3-21.0)		2.4	2.4 (2.0-2.9)	
BLACK	17.0	17.0 (11.2-22.9)		0.8	1.0 (0.2-5.1)	
HISPANIC	21.3	18.3 (14.2-22.4)		0.7	0.8 (0.3-2.2)	
ASIAN	10.0	10.8 (3.3-18.4)		†	† --	
EDUCATION						
< HIGH SCHOOL	30.7	34.4 (29.3-39.4)		3.1	4.4 (2.0-6.7)	
HIGH SCHOOL	26.7	28.4 (25.8-31.0)		4.0	4.4 (3.2-5.7)	
COLLEGE 1–3 YRS	20.2	20.3 (18.0-22.7)		2.3	2.3 (1.5-3.1)	
COLLEGE 4+ YRS	10.5	10.4 (9.0-11.9)		0.7	0.7 (0.3-1.0)	
HOUSEHOLD INCOME						
<\$25,000	25.0	28.6 (25.4-31.7)		2.9	3.6 (2.3-4.9)	
\$25–34,999	22.5	23.9 (19.9-27.8)		2.8	3.3 (1.8-4.8)	
\$35–49,999	22.0	21.5 (18.4-24.6)		3.1	3.1 (1.7-4.5)	
\$50–74,999	19.5	18.5 (15.4-21.5)		2.3	2.1 (1.1-3.1)	
\$75,000+	12.2	11.7 (9.5-13.9)		1.4	1.2 (0.5-1.8)	
REGION						
I–WESTERN	19.9	20.2 (17.0-23.4)		3.1	3.3 (1.7-4.9)	
II–CENTRAL	20.5	20.4 (17.4-23.4)		2.5	2.3 (1.2-3.4)	
III–NORTH EAST	20.6	20.6 (17.8-23.4)		2.9	2.9 (1.8-4.0)	
IV–METRO WEST	13.3	13.9 (11.5-16.3)		0.9	0.9 (0.4-1.4)	
V–SOUTH EAST	20.5	21.6 (18.9-24.3)		2.9	2.8 (1.8-3.8)	
VI–BOSTON	21.6	20.9 (17.5-24.3)		0.9	0.9 (0.3-1.6)	

* Confidence interval presented is for the crude (age specific) rate in the previous column.

** White, Black and Asian race categories refer to non-Hispanic.

† Insufficient numbers.

Section 3.2: Smoking Cessation

Respondents who were current smokers were asked if they had stopped smoking for one day or longer in the past 12 months because they were trying to quit smoking.

Respondents who were current smokers were also asked if they had any intention of trying to quit smoking within the next 30 days.

QUIT ATTEMPT AMONG CURRENT SMOKERS (Table 3.2)

- 60% of current smokers in Massachusetts reported quitting for at least one day in the past year
- The percentage of adults who tried to quit within the past 12 months was lowest in the 55-64 age group
- There was very little difference in the percentage of White and Hispanic adults who tried to quit within the past 12 months
- The percentage of current smokers reporting that they were planning to quit within the next 30 days has varied from year to year, but remained fairly constant since 1997 (Figure 3.2)

PLANNING TO QUIT AMONG CURRENT SMOKERS (Table 3.2)

- 34% of Massachusetts current smokers reported that they were planning to quit within the next 30 days
- Hispanic adults were more likely than White adults to report that they were planning to quit smoking within the next 30 days
- Adults living in the Western region of the state were more likely to report that they were planning to quit within the next 30 days than adults living in other regions of the state

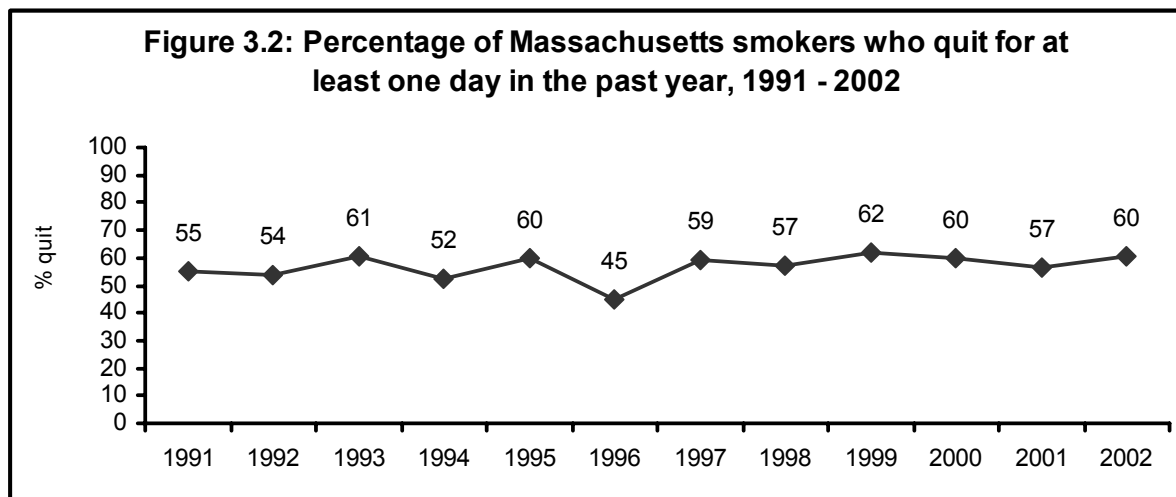


TABLE 3.2 – SMOKING CESSATION AMONG MASSACHUSETTS ADULTS, 2002

	QUIT ATTEMPT			PLANNING TO QUIT		
	CRUDE %	AGE-ADJUSTED %	95% CI	CRUDE %	AGE-ADJUSTED %	95% CI
OVERALL	60.4	60.1	(56.7-63.4)	33.8	39.2	(35.6-42.8)
GENDER						
MALE	58.1	56.3	(51.3-61.2)	36.4	39.1	(33.8-44.5)
FEMALE	62.7	63.3	(59.0-67.7)	31.2	39.3	(34.7-44.0)
AGE GROUP						
18–24	71.2		(61.9-80.5)*	28.2		(16.5-39.9)*
25–34	61.4		(54.2-68.6)*	42.6		(33.0-52.2)*
35–44	58.3		(52.0-64.6)*	31.6		(24.5-38.7)*
45–54	59.5		(52.3-66.7)*	37.2		(28.2-46.2)*
55–64	52.0		(42.6-61.4)*	24.6		(15.3-33.8)*
65–74	55.5		(43.4-67.6)*	41.4		(27.4-55.3)*
75 AND OLDER	†	†	--	†	†	--
RACE-ETHNICITY**						
WHITE	59.7	59.7	(56.1-63.4)	32.4	37.7	(33.9-41.5)
BLACK	†	†	--	†	†	--
HISPANIC	60.1	58.2	(44.4-72.0)	46.8	52.3	(38.9-65.7)
ASIAN	†	†	--	†	†	--
EDUCATION						
< HIGH SCHOOL	67.8	69.2	(61.0-77.4)	38.4	46.8	(36.8-56.7)
HIGH SCHOOL	60.8	59.6	(54.1-65.0)	33.5	37.9	(32.0-43.7)
COLLEGE 1–3 YRS	56.9	57.7	(50.9-64.4)	32.1	39.6	(32.4-46.8)
COLLEGE 4+ YRS	59.3	60.4	(53.7-67.0)	33.6	38.5	(31.4-45.6)
HOUSEHOLD INCOME						
<\$25,000	61.4	61.7	(55.5-67.9)	41.4	48.7	(42.0-55.3)
\$25–34,999	62.8	62.1	(52.4-71.7)	35.4	40.3	(29.4-51.2)
\$35–49,999	57.2	60.1	(51.1-69.1)	33.3	37.7	(29.0-46.4)
\$50–74,999	58.3	52.9	(43.6-62.2)	26.4	24.9	(18.6-31.1)
\$75,000+	61.4	56.7	(46.3-67.1)	30.9	30.2	(22.7-37.6)
REGION						
I–WESTERN	67.9	68.7	(61.4-75.9)	39.0	42.2	(32.7-51.6)
II–CENTRAL	66.5	66.7	(58.1-75.2)	35.3	43.5	(34.2-52.7)
III–NORTH EAST	57.9	55.8	(48.4-63.2)	29.5	36.6	(29.2-44.0)
IV–METRO WEST	54.1	54.0	(45.1-62.9)	33.6	34.8	(25.7-43.9)
V–SOUTH EAST	59.1	56.5	(49.7-63.3)	33.1	37.1	(30.2-44.1)
VI–BOSTON	58.5	62.3	(53.7-70.9)	36.9	46.1	(36.8-55.4)

* Confidence interval presented is for the crude (age specific) rate in the previous column.

** White, Black and Asian race categories refer to non-Hispanic.

† Insufficient numbers.

Section 3.3: Environmental Tobacco Smoke

Respondents were asked about rules regarding smoking in their household. Answer selections were: no smoking is allowed, smoking is allowed in some places/sometimes, or smoking is permitted anywhere in the household. The percentage of respondents reporting that no smoking was allowed in their household is presented.

Respondents were asked about their views on smoking in public places. Respondents were asked if they thought smoking should be allowed in certain areas, permitted without restriction, or not allowed at all. The percentage of respondents who felt that smoking should not be allowed in restaurants is presented.

LIVE IN A HOUSEHOLD WHERE SMOKING IS NOT ALLOWED (Table 3.3)

- 68% of Massachusetts adults reported living in a household where smoking is not allowed
- Hispanic and Asian adults were more likely to live in a household where smoking was not allowed
- The percentage of adults who lived in a household where smoking was not allowed increased with increasing education and income
- A higher percentage of adults living in the Metro West region of the state reported living in a household where smoking is not allowed than adults living in other regions of the state

SUPPORT FOR SMOKEFREE RESTAURANTS (Table 3.3)

- 57% of Massachusetts adults reported that they support smokefree restaurants
- Women were more likely to support smokefree restaurants than men
- Hispanic adults were more likely to support smokefree restaurants than any other race-ethnicity group
- The trend in the percentage of adults who reported that they supported smokefree restaurants increased from 1992-2001, with a slight downward fluctuation in 2002g (Figure 3.3)

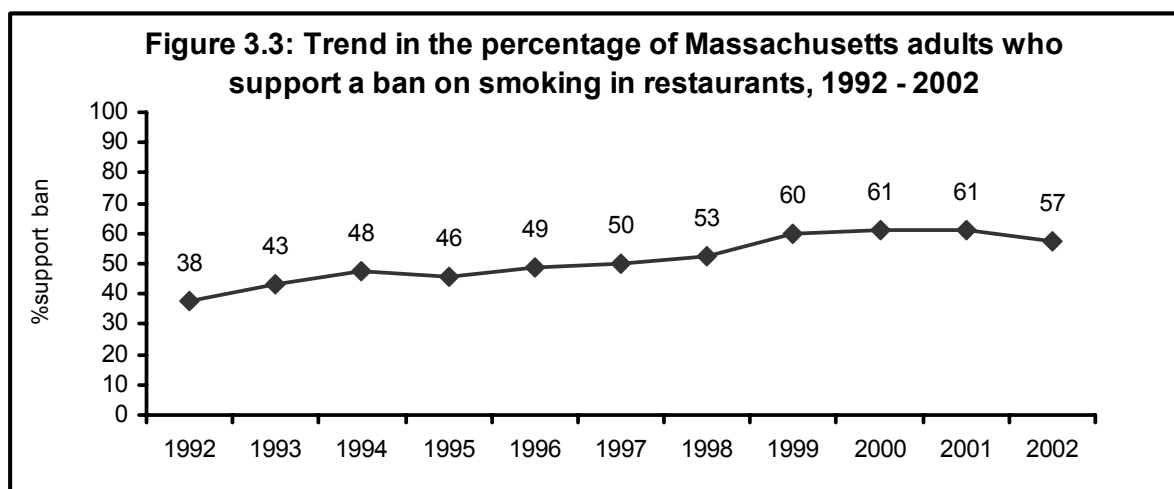


TABLE 3.3 – ENVIRONMENTAL TOBACCO SMOKE AMONG MASSACHUSETTS ADULTS, 2002

	LIVE IN A HOUSEHOLD WHERE SMOKING IS NOT ALLOWED			SUPPORT BAN ON SMOKING IN RESTAURANTS		
	CRUDE %	AGE-ADJUSTED %	95% CI	CRUDE %	AGE-ADJUSTED %	95% CI
OVERALL	68.3	68.2	(66.8-69.6)	57.3	57.4	(55.4-59.4)
GENDER						
MALE	66.7	66.7	(64.5-68.8)	54.5	54.7	(51.6-57.8)
FEMALE	69.8	69.7	(67.8-71.5)	60.0	60.2	(57.6-62.7)
AGE GROUP						
18–24	64.7		(59.4-70.0)*	55.8		(48.6-63.1)*
25–34	71.8		(68.6-75.0)*	55.9		(51.1-60.8)*
35–44	70.5		(67.7-73.2)*	59.9		(55.9-64.0)*
45–54	65.9		(62.7-69.0)*	56.8		(52.2-61.3)*
55–64	64.5		(60.5-68.4)*	59.5		(54.2-64.9)*
65–74	68.4		(64.3-72.4)*	58.8		(52.9-64.8)*
75 AND OLDER	70.2		(65.9-74.6)*	52.4		(45.7-59.0)*
RACE-ETHNICITY**						
WHITE	67.0	66.8	(65.2-68.4)	55.8	55.8	(53.6-58.1)
BLACK	71.0	70.0	(63.0-77.0)	67.8	68.6	(59.3-77.9)
HISPANIC	77.3	77.7	(73.1-82.2)	72.2	72.9	(65.9-79.8)
ASIAN	78.1	79.3	(70.2-88.4)	45.5	39.6	(26.2-53.0)
EDUCATION						
< HIGH SCHOOL	60.8	59.5	(54.2-64.7)	57.4	58.6	(51.0-66.1)
HIGH SCHOOL	60.8	60.3	(57.3-63.2)	53.3	53.7	(49.5-57.8)
COLLEGE 1–3 YRS	65.6	65.7	(62.8-68.6)	55.7	55.2	(51.1-59.3)
COLLEGE 4+ YRS	76.4	75.9	(73.9-78.0)	60.8	61.0	(57.8-64.2)
HOUSEHOLD INCOME						
<\$25,000	61.1	58.9	(55.5-62.4)	57.0	58.0	(53.4-62.6)
\$25–34,999	61.5	61.0	(56.5-65.4)	52.3	52.9	(46.4-59.3)
\$35–49,999	62.5	62.1	(58.1-66.1)	57.2	57.1	(52.0-62.2)
\$50–74,999	66.8	67.3	(63.5-71.1)	52.9	54.0	(48.7-59.3)
\$75,000+	77.3	77.6	(74.8-80.4)	62.8	61.5	(57.0-65.9)
REGION						
I–WESTERN	65.8	65.8	(62.0-69.7)	65.8	65.2	(60.3-70.2)
II–CENTRAL	69.9	69.8	(66.3-73.4)	56.0	55.8	(50.5-61.2)
III–NORTH EAST	65.7	65.3	(61.9-68.7)	54.8	55.3	(50.8-59.9)
IV–METRO WEST	73.4	73.1	(70.2-76.0)	56.1	56.0	(51.2-60.8)
V–SOUTH EAST	67.3	67.2	(64.0-70.3)	56.3	55.7	(50.9-60.4)
VI–BOSTON	65.7	64.4	(60.4-68.4)	58.0	58.4	(53.3-63.6)

* Confidence interval presented is for the crude (age specific) rate in the previous column.

** White, Black and Asian race categories refer to non-Hispanic.

Section 3.4: Alcohol Use

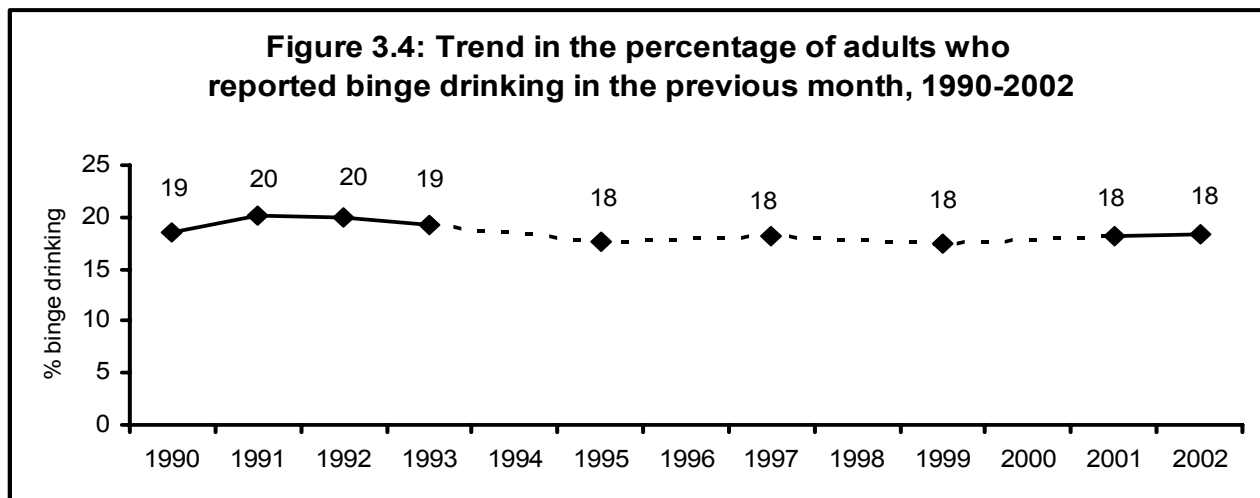
All respondents were asked about their consumption of alcohol in the past month. Binge drinking was defined as consumption of 5 or more drinks on any one occasion in the past month. Heavy drinking was defined as consumption of more than 60 drinks in the past month for men and consumption of more than 30 drinks in the past month for women.

BINGE DRINKING (Table 3.4)

- 18% of Massachusetts adults reported binge drinking in the past month
- Men were nearly three times as likely to report binge drinking as women
- The percentage of adults reporting binge drinking decreased with increasing age
- White and Hispanic adults were almost twice as likely to binge drink as Black and Asian adults
- The percentage of adults reporting binge drinking did not vary greatly by income
- The percentage of adults reporting binge drinking has remained relatively stable from 1990 to 2002 (Figure 3.4)

HEAVY DRINKING (Table 3.4)

- 8% of Massachusetts adults reported heavy drinking in the past month
- Adults ages 18-24 were more likely to report heavy drinking than all other age groups
- White and Black adults were more likely to report heavy drinking than were Hispanic and Asian adults



Note: Dotted line signifies year in which question was not asked.

TABLE 3.4 – ALCOHOL USE AMONG MASSACHUSETTS ADULTS, 2002

	BINGE DRINKING			HEAVY DRINKING***		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	18.3	18.6 (17.5-19.8)		7.7	7.7 (6.9 - 8.5)	
GENDER						
MALE	28.4	28.0 (26.0-29.9)		8.8	8.8 (7.4-10.1)	
FEMALE	9.4	9.8 (8.7-11.0)		6.6	6.6 (5.7 - 7.6)	
AGE GROUP						
18–24	37.5	(32.2-42.7)*		13.1	(9.3-16.8)*	
25–34	29.6	(26.4-32.8)*		8.9	(6.8-11.0)*	
35–44	19.2	(16.8-21.6)*		5.7	(4.4 - 7.1)*	
45–54	13.9	(11.6-16.2)*		7.7	(6.0 - 9.4)*	
55–64	9.0	(6.7-11.2)*		6.3	(4.4 - 8.1)*	
65–74	4.8	(3.0 - 6.6)*		8.9	(6.4-11.5)*	
75 AND OLDER	2.3	(0.8 - 3.8)*		2.1	(0.7 - 3.6)*	
RACE-ETHNICITY**						
WHITE	19.0	20.4 (19.0-21.7)		8.2	8.5 (7.5 - 9.5)	
BLACK	9.7	8.5 (4.4-12.5)		8.1	7.1 (2.7-11.5)	
HISPANIC	19.1	15.0 (11.4-18.6)		3.9	3.6 (1.6 - 5.5)	
ASIAN	10.3	6.3 (2.7 - 9.9)		1.7	0.9 (0.3 - 2.6)	
EDUCATION						
< HIGH SCHOOL	14.5	15.2 (11.6-18.8)		5.1	5.4 (3.2 - 7.5)	
HIGH SCHOOL	19.0	20.4 (17.9-22.9)		8.0	8.2 (6.4-10.0)	
COLLEGE 1–3 YRS	21.4	20.7 (18.3-23.0)		9.1	9.1 (7.3-10.8)	
COLLEGE 4+ YRS	16.9	17.3 (15.5-19.2)		7.1	7.8 (6.4 - 9.2)	
HOUSEHOLD INCOME						
<\$25,000	17.3	17.5 (14.8-20.2)		6.7	6.8 (5.1 - 8.4)	
\$25–34,999	19.4	19.7 (15.9-23.5)		8.9	8.6 (5.8-11.3)	
\$35–49,999	21.9	21.5 (18.1-24.8)		9.6	9.4 (7.0-11.9)	
\$50–74,999	21.3	21.6 (18.5-24.6)		9.2	9.6 (6.9-12.3)	
\$75,000+	18.4	18.4 (15.9-20.9)		7.4	8.0 (6.1 - 9.8)	
REGION						
I–WESTERN	16.4	17.0 (14.0-20.0)		7.9	7.8 (5.6-10.0)	
II–CENTRAL	18.8	19.0 (16.0-22.1)		6.5	6.7 (4.7 - 8.7)	
III–NORTH EAST	20.2	19.9 (17.1-22.6)		8.0	7.9 (5.9-10.0)	
IV–METRO WEST	16.3	17.3 (14.6-20.0)		7.3	7.7 (5.9 - 9.6)	
V–SOUTH EAST	16.9	18.6 (15.9-21.3)		8.6	8.9 (6.9-10.8)	
VI–BOSTON	23.8	18.8 (15.9-21.7)		7.1	6.4 (4.5 - 8.2)	

* Confidence interval presented is for the crude (age specific) rate in the previous column.

** White, Black and Asian race categories refer to non-Hispanic.

***Heavy drinking is defined as consumption of more than 60 drinks in the past month for men and more than 30 drinks for women. Reports published prior to 2001 have defined heavy drinking as 60 or more drinks for either men or women. As a result, rates presented in this report may not be comparable to rates published prior to 2001.

Section 3.5: Overweight and Obesity

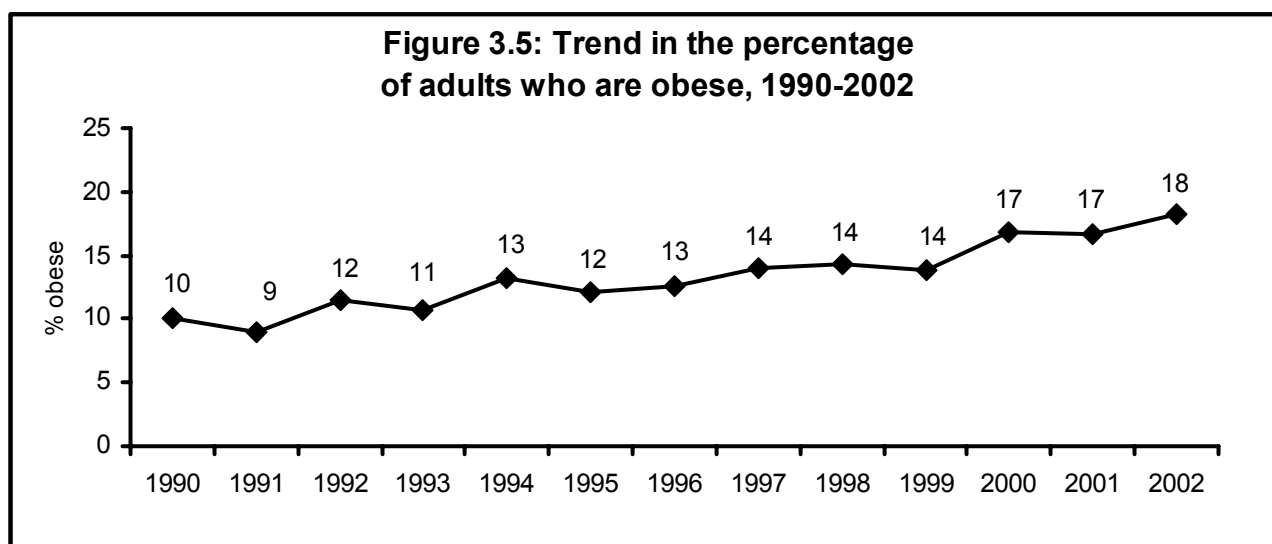
All respondents were asked to report their height and weight. Using the Body Mass Index (BMI)^{*}, which equals weight in kilograms divided by height in meters squared, all respondents were categorized based on their BMI. Using Healthy People 2010 standards (HP2010), all adults with a BMI between 25.0-29.9 were classified as being overweight and adults with a BMI > 30.0 were classified as being obese. For example, a person who is 5'6" would be considered overweight at 155 pounds and obese at 186 pounds. Please note that the overweight category presented here includes respondents with a BMI larger than 25.0 (respondents classified as overweight or obese).

OVERWEIGHT (BMI >= 25.0) (Table 3.5)

- 55% of Massachusetts adults were overweight
- Men were more likely than women to be overweight
- The percentage of adults who were overweight increased with increasing age until age 64, then decreased
- Black adults were more likely than all other race ethnicity groups to be overweight
- Adults with four or more years of college education were less likely to be overweight than adults with less education

OBESITY (BMI >= 30) (Table 3.5)

- 18% of Massachusetts adults were obese
- Younger adults (ages 18-34) and older adults (ages 75+) were less likely than adults ages 35-74 to be obese
- Asian adults were less likely to be obese than all other race-ethnicity groups
- The percentage of adults who were obese decreased with increasing education
- Adults living in the Metro West region of the state were less likely to be obese than those living in other regions of the state
- Since 1990, the percentage of adults who were obese has increased (Figure 3.5)



^{*} Weight in kilograms divided by height in meters squared

TABLE 3.5 – OVERWEIGHT AND OBESITY AMONG MASSACHUSETTS ADULTS, 2002

	OVERWEIGHT (HP 2010)			OBESE (HP 2010)		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	54.6	54.5 (53.1-56.0)		18.3	18.3 (17.2-19.5)	
GENDER						
MALE	66.4	66.4 (64.3-68.5)		19.3	19.3 (17.5-21.1)	
FEMALE	43.4	43.0 (41.1-44.9)		17.3	17.4 (15.9-18.9)	
AGE GROUP						
18–24	37.2	(31.8-42.6)*		11.5	(7.8-15.3)*	
25–34	46.6	(43.2-50.1)*		13.7	(11.2-16.1)*	
35–44	56.6	(53.6-59.6)*		20.5	(18.0-23.1)*	
45–54	62.8	(59.7-66.0)*		20.4	(17.7-23.1)*	
55–64	64.5	(60.7-68.3)*		25.0	(21.5-28.5)*	
65–74	62.2	(57.9-66.6)*		21.3	(17.6-24.9)*	
75 AND OLDER	51.9	(47.2-56.7)*		15.7	(12.2-19.2)*	
RACE-ETHNICITY**						
WHITE	54.7	53.8 (52.2-55.5)		18.1	17.8 (16.5-19.1)	
BLACK	64.6	64.3 (57.2-71.5)		29.2	30.6 (23.8-37.5)	
HISPANIC	59.2	62.9 (56.8-69.0)		22.1	24.7 (19.8-29.5)	
ASIAN	31.7	29.3 (20.0-38.5)		6.4	6.5 (0.9-12.2)	
EDUCATION						
< HIGH SCHOOL	58.8	59.1 (53.9-64.2)		26.2	28.2 (23.5-32.8)	
HIGH SCHOOL	61.3	61.4 (58.6-64.3)		22.5	22.5 (19.9-25.0)	
COLLEGE 1–3 YRS	54.5	55.4 (52.4-58.3)		19.1	19.3 (16.9-21.7)	
COLLEGE 4+ YRS	49.5	48.8 (46.4-51.2)		13.4	13.3 (11.6-14.9)	
HOUSEHOLD INCOME						
<\$25,000	53.1	54.1 (50.6-57.5)		21.6	22.9 (20.0-25.9)	
\$25–34,999	54.5	54.8 (50.3-59.4)		17.8	17.9 (14.4-21.5)	
\$35–49,999	58.4	58.1 (54.3-62.0)		20.3	20.3 (16.7-23.8)	
\$50–74,999	58.7	57.9 (53.9-61.8)		19.5	17.9 (15.2-20.6)	
\$75,000+	54.8	55.3 (52.0-58.6)		15.6	16.1 (13.5-18.7)	
REGION						
I–WESTERN	59.0	59.0 (55.1-62.9)		20.4	20.1 (16.7-23.5)	
II–CENTRAL	59.4	58.8 (55.0-62.5)		22.6	22.3 (19.1-25.5)	
III–NORTH EAST	56.2	56.6 (53.2-60.0)		19.1	19.4 (16.6-22.1)	
IV–METRO WEST	49.6	49.2 (45.8-52.6)		13.0	13.0 (10.8-15.2)	
V–SOUTH EAST	57.1	55.8 (52.5-59.2)		19.9	19.5 (16.8-22.1)	
VI–BOSTON	45.9	51.8 (48.1-55.5)		16.8	19.9 (16.6-23.3)	

* Confidence interval presented is for the crude (age specific) rate in the previous column.

** White, Black and Asian race categories refer to non-Hispanic.

Section 3.6: Physical Activity

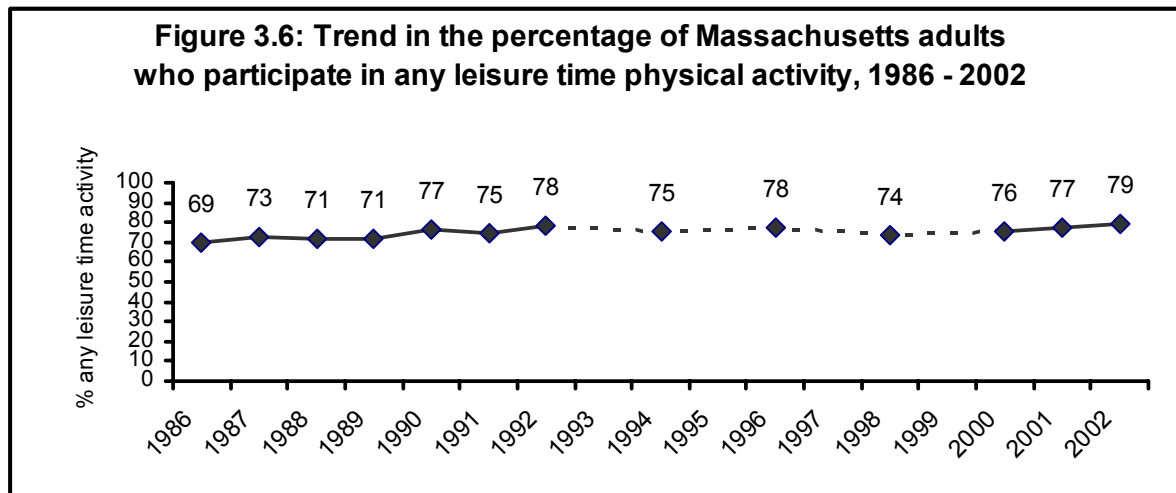
All respondents were asked if they had participated in any leisure time physical activity in the previous month. Respondents were also asked if they had participated in either moderate or vigorous physical activities. Adults who participated in 30 minutes of moderate exercise 5 days per week or 20 minutes of vigorous exercise 3 days per week were classified as engaging in regular physical activity.

ANY LEISURE TIME PHYSICAL ACTIVITY (Table 3.6)

- 79% of Massachusetts adults reported any leisure time physical activity in the past month
- Men were more likely to have reported any leisure time physical activity in the past month than women
- Hispanic adults were less likely than any other race-ethnicity group to have participated in any leisure time physical activity in the past month
- The percentage of adults who participated in any leisure time physical activity at least once in the past month increased with increasing levels of education and income
- Adults living in the Metro West region were more likely to report any leisure time physical activity in the past month than those living in other regions of the state
- The percentage of adults who participated in any leisure time physical activity has increased from 1986 to 2002 (Figure 3.6)

REGULAR PHYSICAL ACTIVITY IN THE PAST MONTH (Table 3.6)

- 51% of Massachusetts adults reported regular physical activity in the past month
- The percentage of adults who reported regular physical activity decreased with increasing age
- Regular physical activity increased with increasing education and income
- White and black adults were more likely to report regular physical activity than Hispanic and Asian adults



Note: Dotted line signifies year in which question was not asked.

TABLE 3.6 – PHYSICAL ACTIVITY AMONG MASSACHUSETTS ADULTS, 2002

	ANY EXERCISE IN PAST MONTH			REGULAR PHYSICAL ACTIVITY***		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	79.2	79.3 (78.1-80.4)		50.8	50.7 (48.5-52.8)	
GENDER						
MALE	81.2	80.9 (79.1-82.7)		53.3	52.9 (49.7-56.1)	
FEMALE	77.4	77.9 (76.4-79.4)		48.4	48.7 (45.9-51.5)	
AGE GROUP						
18–24	81.9	(77.8-86.0)*		57.2	(49.5-64.9)*	
25–34	82.5	(80.1-84.9)*		57.3	(52.4-62.2)*	
35–44	82.2	(79.9-84.6)*		51.7	(47.2-56.2)*	
45–54	82.2	(79.8-84.6)*		50.9	(46.0-55.7)*	
55–64	77.9	(74.6-81.1)*		51.7	(46.0-57.3)*	
65–74	73.6	(69.8-77.4)*		40.8	(34.5-47.1)*	
75 AND OLDER	61.0	(56.5-65.5)*		30.4	(23.6-37.2)*	
RACE-ETHNICITY**						
WHITE	82.0	82.7 (81.5-83.8)		52.0	52.6 (50.2-54.9)	
BLACK	69.6	68.4 (61.2-75.7)		54.6	50.2 (39.2-61.3)	
HISPANIC	54.8	53.7 (48.2-59.2)		36.1	33.3 (25.0-41.7)	
ASIAN	74.2	73.9 (64.4-83.3)		36.9	24.9 (15.8-34.0)	
EDUCATION						
< HIGH SCHOOL	55.1	55.7 (50.6-60.8)		39.9	40.1 (32.0-48.1)	
HIGH SCHOOL	69.7	70.1 (67.5-72.8)		45.8	47.1 (42.7-51.6)	
COLLEGE 1–3 YRS	82.2	82.0 (79.8-84.2)		50.5	49.4 (45.0-53.8)	
COLLEGE 4+ YRS	88.9	88.5 (87.1-90.0)		55.8	55.2 (51.8-58.7)	
HOUSEHOLD INCOME						
<\$25,000	64.5	64.3 (61.0-67.5)		40.9	42.0 (37.0-46.9)	
\$25–34,999	72.2	72.3 (68.2-76.5)		50.4	51.0 (43.9-58.1)	
\$35–49,999	81.1	81.3 (78.3-84.4)		53.2	51.2 (45.7-56.8)	
\$50–74,999	85.8	85.5 (82.9-88.0)		51.0	49.9 (44.0-55.7)	
\$75,000+	91.2	90.8 (88.7-92.8)		58.3	57.9 (53.2-62.6)	
REGION						
I–WESTERN	77.9	78.2 (75.1-81.2)		52.3	51.6 (45.9-57.3)	
II–CENTRAL	78.4	78.3 (75.3-81.3)		45.4	45.4 (39.9-50.8)	
III–NORTH EAST	77.7	77.3 (74.6-80.1)		45.0	44.7 (39.9-49.5)	
IV–METRO WEST	85.2	85.9 (83.8-88.0)		55.3	55.7 (50.8-60.6)	
V–SOUTH EAST	77.4	77.5 (74.6-80.4)		51.7	52.6 (47.6-57.5)	
VI–BOSTON	75.2	74.0 (70.6-77.4)		56.3	52.3 (47.0-57.7)	

* Confidence interval presented is for the crude (age specific) rate in the previous column.

** White, Black and Asian race categories refer to non-Hispanic.

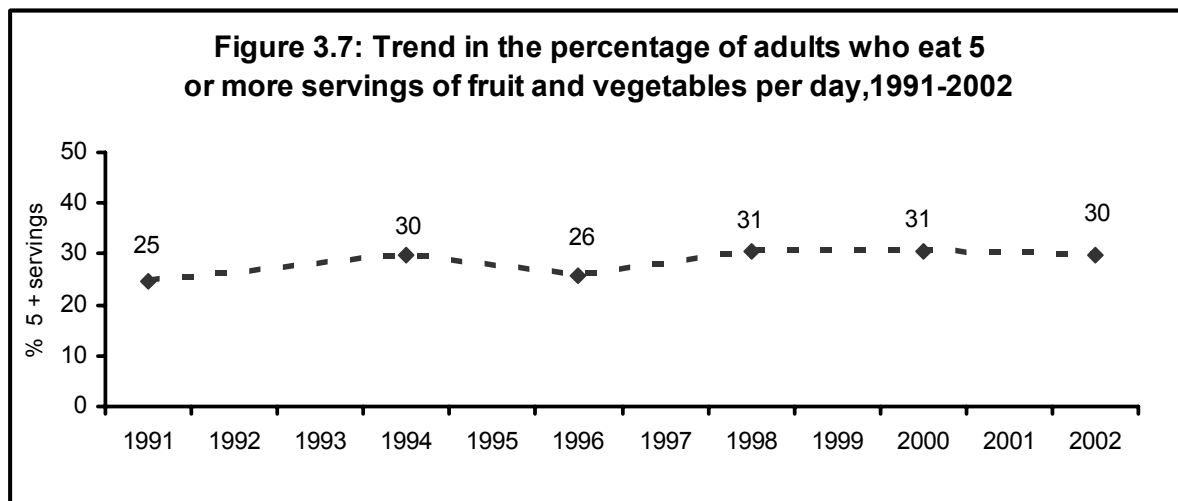
***In 2001, physical activity questions were changed. As such, rates are not comparable to years previous to 2001.

Section 3.7: Fruit and Vegetable Consumption

All respondents were asked about their consumption of fruits and vegetables. This included fruit juice, fruit, green salad, carrots, potatoes, and other vegetables. Presented here is the percentage of Massachusetts adults who consumed five or more servings of fruits or vegetables per day.

FIVE OR MORE SERVINGS OF FRUIT AND VEGETABLES PER DAY (Table 3.7)

- 30% of Massachusetts adults reported consuming five or more servings of fruit and vegetables per day
- Women were more likely to consume five or more servings of fruit and vegetables per day than men
- The percentage of adults who consumed five or more servings of fruit and vegetables per day increased with increasing age and education
- Black adults were less likely to consume five or more servings of fruit and vegetables per day than any other race-ethnicity group
- Fruit and vegetable consumption has increased slightly since 1991 (Figure 3.7)



Note: Dotted line signifies year in which question was not asked.

TABLE 3.7 – FRUIT AND VEGETABLE CONSUMPTION AMONG MASSACHUSETTS ADULTS, 2002

	CRUDE	AGE-ADJUSTED	
	%	%	95% CI
OVERALL	29.7	29.6	(28.3-30.9)
GENDER			
MALE	23.9	24.1	(22.1-26.0)
FEMALE	34.8	34.5	(32.7-36.3)
AGE GROUP			
18–24	29.0		(24.2-33.8)*
25–34	27.4		(24.3-30.4)*
35–44	27.1		(24.6-29.7)*
45–54	28.5		(25.6-31.5)*
55–64	31.8		(28.2-35.4)*
65–74	35.1		(31.0-39.3)*
75 AND OLDER	35.1		(30.7-39.4)*
RACE-ETHNICITY**			
WHITE	30.1	29.8	(28.3-31.3)
BLACK	22.8	24.2	(18.7-29.8)
HISPANIC	27.4	28.4	(22.7-34.1)
ASIAN	31.0	32.1	(20.7-43.5)
EDUCATION			
< HIGH SCHOOL	23.2	22.7	(18.2-27.1)
HIGH SCHOOL	23.6	22.7	(20.3-25.0)
COLLEGE 1–3 YRS	30.2	30.5	(27.8-33.1)
COLLEGE 4+ YRS	34.7	35.0	(32.7-37.3)
HOUSEHOLD INCOME			
<\$25,000	27.0	26.0	(23.2-28.9)
\$25–34,999	28.4	27.5	(23.5-31.5)
\$35–49,999	30.6	30.4	(26.7-34.0)
\$50–74,999	27.3	28.3	(24.7-31.9)
\$75,000+	32.0	33.5	(30.3-36.7)
REGION			
I–WESTERN	31.3	30.9	(27.4-34.4)
II–CENTRAL	29.8	29.8	(26.4-33.2)
III–NORTH EAST	26.7	26.8	(23.9-29.7)
IV–METRO WEST	32.8	32.9	(29.7-36.1)
V–SOUTH EAST	29.6	29.2	(26.2-32.2)
VI–BOSTON	26.5	26.4	(23.2-29.5)

* Confidence interval presented is for the crude (age specific) rate in the previous column.

** White, Black and Asian race categories refer to non-Hispanic.

Section 3.8: Flu Shot and Pneumonia Vaccine

All respondents were asked if they had an influenza vaccine or a “flu shot” within the past 12 months. In addition, all respondents were asked if they had ever received a pneumonia vaccine. Presented here are the percentage of adults receiving a flu shot in the past year for those ages 50-64 and 65+, and the percentage of adults reporting that they had ever had a pneumonia vaccination for those ages 65 and older.

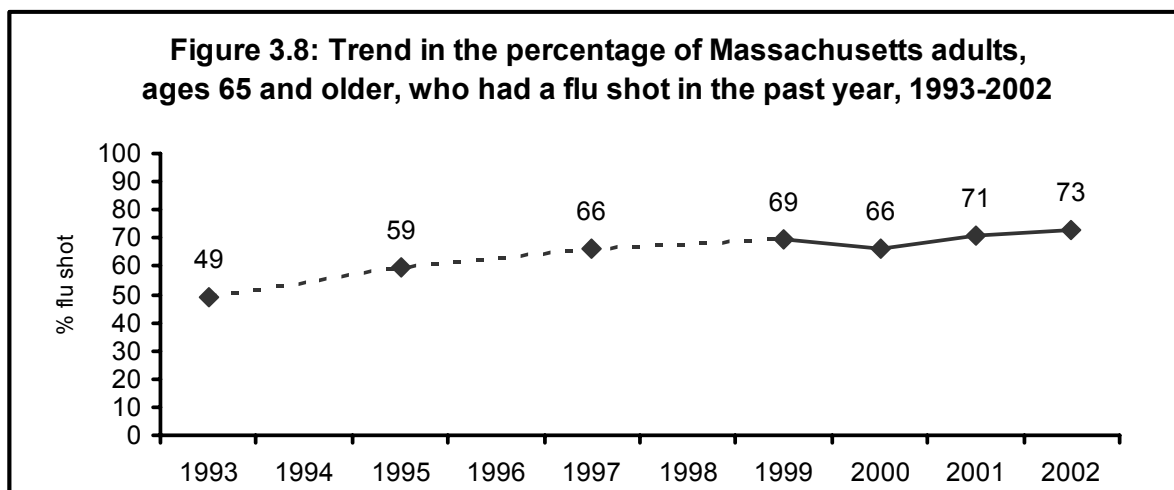
HP2010 goals for pneumonia and influenza vaccine focus on older adults, given that older adults are at greater risk for death or illness caused by influenza or pneumococcal disease.

FLU SHOT (Table 3.8)

- 39% of Massachusetts adults ages 50-64 received a flu shot in the past year
- 73% of adults ages 65 and older received a flu shot in the past year
- There was very little difference in the percentage of White and Hispanic adults ages 50-64 reporting that they had a flu shot in the past year
- The percentage of adults who had had a flu shot in the past year was fairly consistent across education and income levels
- Since 1993, the percentage of adults ages 65+ who have had a flu shot in the past year has increased (Figure 3.8)

PNEUMONIA VACCINE (Table 3.8)

- 63% of Massachusetts adults ages 65 and older had ever received a pneumonia vaccine
- Adults reporting a household income of \$75,000 or more per year were less likely than those with lower household incomes to have received a pneumonia vaccine
- Adults with four or more years of college education were less likely than those with less education to have received a pneumonia vaccine



Note: Dotted line signifies year in which question was not asked.

TABLE 3.8 – FLU SHOT AND PNEUMONIA VACCINE AMONG MASSACHUSETTS ADULTS, 2002

	FLU SHOT IN PAST YEAR				EVER HAD PNEUMONIA VACCINATION	
	AGES 50-64		AGES 65+		AGES 65+	
	CRUDE%	95%CI	CRUDE%	95% CI	CRUDE%	95%CI
OVERALL	39.2	(36.3-42.1)	72.6	(69.7-75.4)	63.4	(60.3-66.5)
GENDER						
MALE	35.8	(31.5-40.1)	70.4	(65.6-75.2)	61.7	(56.5-66.8)
FEMALE	42.5	(38.5-46.5)	74.0	(70.5-77.5)	64.5	(60.7-68.4)
AGE GROUP						
50–64	39.2	(36.3-42.1)				
65–74			66.7	(62.5-70.9)	56.8	(52.4-61.2)
75 AND OLDER			79.9	(76.3-83.5)	71.7	(67.6-75.9)
RACE-ETHNICITY*						
WHITE	38.9	(35.8-42.0)	73.3	(70.4-76.3)	65.0	(61.8-68.2)
BLACK	†	--	†	--	†	--
HISPANIC	41.3	(29.2-53.5)	†	--	†	--
ASIAN	†	--	†	--	†	--
EDUCATION						
< HIGH SCHOOL	39.0	(29.2-48.7)	68.3	(60.4-76.2)	62.5	(54.5-70.4)
HIGH SCHOOL	36.0	(30.1-41.9)	74.7	(69.9-79.4)	66.7	(61.6-71.8)
COLLEGE 1–3 YRS	44.6	(38.6-50.7)	72.5	(66.4-78.6)	62.2	(55.2-69.1)
COLLEGE 4+ YRS	37.8	(33.4-42.3)	72.6	(67.2-77.9)	60.8	(54.9-66.7)
HOUSEHOLD INCOME						
<\$25,000	42.4	(35.1-49.7)	68.6	(63.5-73.6)	63.8	(58.6-69.0)
\$25–34,999	36.0	(27.0-45.0)	73.8	(65.9-81.7)	64.5	(55.9-73.1)
\$35–49,999	39.2	(31.8-46.6)	76.6	(68.4-84.8)	67.1	(58.1-76.2)
\$50–74,999	40.0	(32.9-47.1)	75.8	(65.8-85.9)	62.1	(50.6-73.6)
\$75,000+	37.4	(31.9-42.8)	72.0	(62.0-82.0)	50.8	(39.3-62.3)
REGION						
I–WESTERN	41.1	(33.3-48.8)	71.7	(64.3-79.1)	61.3	(53.3-69.2)
II–CENTRAL	41.4	(33.7-49.0)	75.4	(67.9-82.8)	63.3	(54.8-71.8)
III–NORTH EAST	36.7	(29.8-43.6)	71.2	(63.7-78.8)	65.4	(57.8-73.1)
IV–METRO WEST	40.8	(34.3-47.3)	75.6	(69.8-81.5)	68.4	(62.0-74.9)
V–SOUTH EAST	34.9	(29.0-40.9)	69.9	(64.1-75.7)	58.5	(52.0-64.9)
VI–BOSTON	47.5	(38.3-56.8)	70.6	(61.7-79.6)	62.7	(53.1-72.3)

* White, Black and Asian race categories refer to non-Hispanic.

† Insufficient numbers.

SECTION 4: CHRONIC HEALTH CONDITIONS

Section 4.1: Diabetes

All respondents were asked if they had ever been told by a doctor that they had diabetes. Women who had reported that they had diabetes only during pregnancy (gestational diabetes) were not included in this analysis.

DIABETES (Table 4.1)

- 6% of Massachusetts adults reported that they had been told by a doctor that they had diabetes
- The percentage of adults with diabetes increased with increasing age
- Black adults were more likely to have diabetes than White or Hispanic adults
- The percentage of adults with diabetes decreased with increasing education and income
- The percentage of adults with diabetes has fluctuated, remaining at a consistently increased level for the past three years (Figure 4.1)

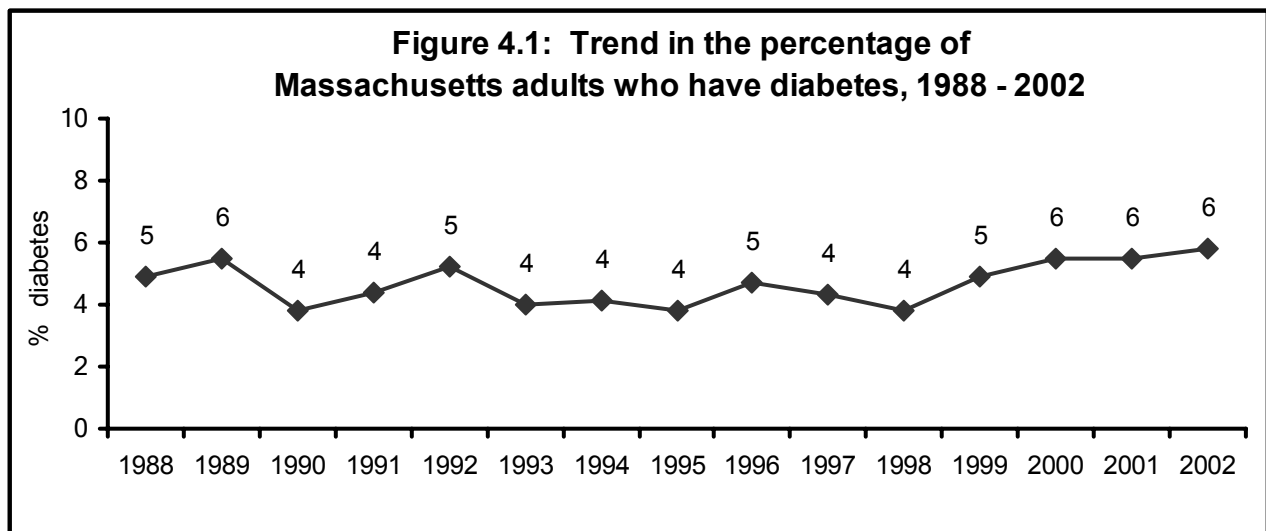


TABLE 4.1 – DIABETES AMONG MASSACHUSETTS ADULTS, 2002

	CRUDE %	AGE-ADJUSTED % 95% CI
OVERALL	5.8	5.7 (5.1 - 6.3)
GENDER		
MALE	6.3	6.5 (5.5 - 7.5)
FEMALE	5.4	5.2 (4.4 - 6.0)
AGE GROUP		
18–24	1.3	(0.1 - 2.5)*
25–34	1.0	(0.4 - 1.6)*
35–44	2.9	(1.8 - 4.0)*
45–54	6.7	(5.0 - 8.3)*
55–64	9.2	(7.0-11.5)*
65–74	12.4	(9.6-15.3)*
75 AND OLDER	16.3	(12.8-19.7)*
RACE-ETHNICITY**		
WHITE	5.7	5.2 (4.6 - 5.9)
BLACK	12.1	14.2 (8.8-19.7)
HISPANIC	5.9	10.2 (6.2-14.3)
ASIAN	†	† --
EDUCATION		
< HIGH SCHOOL	10.8	9.3 (5.9-12.7)
HIGH SCHOOL	7.3	6.6 (5.4 - 7.8)
COLLEGE 1–3 YRS	5.3	5.5 (4.2 - 6.8)
COLLEGE 4+ YRS	4.0	4.4 (3.4 - 5.4)
HOUSEHOLD INCOME		
<\$25,000	8.1	7.7 (6.2 - 9.2)
\$25–34,999	7.6	6.7 (4.6 - 8.7)
\$35–49,999	7.1	6.9 (5.0 - 8.8)
\$50–74,999	4.9	5.4 (3.5 - 7.3)
\$75,000+	2.7	3.0 (1.8 - 4.2)
REGION		
I–WESTERN	7.2	6.7 (4.9 - 8.4)
II–CENTRAL	6.6	6.4 (4.8 - 8.0)
III–NORTH EAST	6.0	6.2 (4.6 - 7.9)
IV–METRO WEST	5.0	4.6 (3.3 - 5.9)
V–SOUTH EAST	5.6	5.0 (3.8 - 6.2)
VI–BOSTON	5.0	6.6 (4.7 - 8.5)

* Confidence interval presented is for the crude (age specific) rate in the previous column.

** White, Black and Asian race categories refer to non-Hispanic.

† Insufficient numbers.

Section 4.2: Asthma

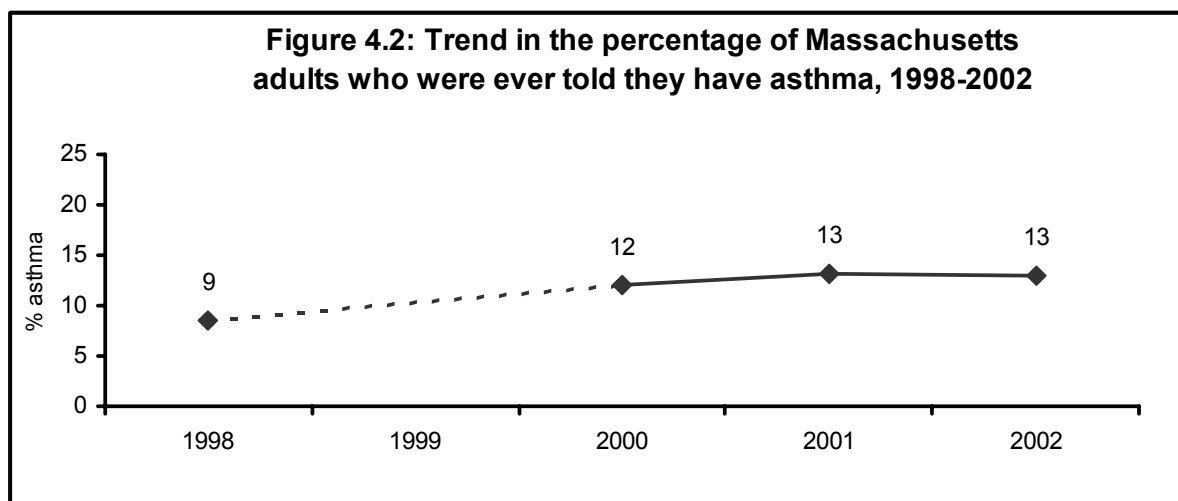
All respondents were asked if they had ever been told by a doctor, nurse, or other health care professional that they had asthma. Those who reported ever having asthma, were then asked if they still had asthma.

EVER HAD ASTHMA (Table 4.2)

- 13% of Massachusetts adults reported that they had ever been told that they had asthma
- Women were more likely to report having ever had asthma than men
- The percentage of adults who have ever had asthma decreased with increasing age
- Hispanic adults were more likely than any other race-ethnicity group to report ever having asthma
- The percentage of adults who have ever had asthma was highest among those with less than a high school education
- The percentage of adults who have ever had asthma was highest in the Western region of the state
- The percentage of adults who have ever had asthma has increased since 1998 (Figure 4.2)

CURRENTLY HAVE ASTHMA (Table 4.2)

- 9% of Massachusetts adults reported currently having asthma
- Women were more likely than men to currently have asthma
- The percentage of people who currently have asthma was highest in the 18-24 year old age group
- Adults with lower levels of education were more likely to report that they currently had asthma than those with higher levels of education



Note: Dotted line signifies year in which question was not asked.

TABLE 4.2 – ASTHMA AMONG MASSACHUSETTS ADULTS, 2002

	EVER HAD ASTHMA			CURRENTLY HAVE ASTHMA		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	12.9	13.0	(12.0-14.0)	8.9	9.0	(8.1 - 9.8)
GENDER						
MALE	11.3	11.3	(9.8-12.8)	7.3	7.3	(6.1 - 8.6)
FEMALE	14.3	14.6	(13.2-16.0)	10.3	10.5	(9.3-11.7)
AGE GROUP						
18–24	20.1		(15.8-24.3)*	12.7		(9.0-16.3)*
25–34	15.2		(12.8-17.7)*	9.8		(7.7-11.9)*
35–44	11.2		(9.3-13.1)*	8.1		(6.4 - 9.8)*
45–54	13.0		(10.9-15.1)*	9.6		(7.8-11.5)*
55–64	12.2		(9.7-14.6)*	8.7		(6.6-10.7)*
65–74	8.8		(6.5-11.0)*	6.8		(4.8 - 8.9)*
75 AND OLDER	7.3		(4.7 - 9.9)*	4.9		(2.7 - 7.1)*
RACE-ETHNICITY**						
WHITE	12.8	13.2	(12.1-14.3)	8.8	9.1	(8.1-10.1)
BLACK	10.8	11.4	(6.6-16.2)	7.5	8.3	(4.0-12.6)
HISPANIC	15.3	14.7	(11.2-18.2)	10.8	11.1	(7.9-14.3)
ASIAN	8.5	10.6	(3.0-18.1)	4.8	8.2	(1.0-15.4)
EDUCATION						
< HIGH SCHOOL	16.7	18.8	(14.5-23.0)	11.6	13.1	(9.3-16.9)
HIGH SCHOOL	11.6	11.9	(10.0-13.8)	8.5	8.8	(7.1-10.6)
COLLEGE 1–3 YRS	14.1	13.5	(11.5-15.5)	9.8	9.6	(7.8-11.4)
COLLEGE 4+ YRS	12.2	12.3	(10.7-13.9)	8.0	8.1	(6.8 - 9.5)
HOUSEHOLD INCOME						
<\$25,000	13.7	15.1	(12.7-17.6)	10.8	11.9	(9.6-14.2)
\$25–34,999	10.9	10.8	(8.0-13.6)	7.1	7.2	(4.9 - 9.6)
\$35–49,999	10.8	10.6	(8.4-12.8)	7.8	7.6	(5.7 - 9.6)
\$50–74,999	13.8	13.6	(10.7-16.4)	9.2	8.5	(6.3-10.7)
\$75,000+	13.4	14.2	(11.7-16.7)	8.6	10.0	(7.7-12.4)
REGION						
I–WESTERN	15.0	15.0	(12.3-17.7)	9.9	10.0	(7.7-12.3)
II–CENTRAL	12.0	12.2	(9.7-14.7)	7.9	8.0	(5.9-10.1)
III–NORTH EAST	11.7	11.6	(9.5-13.8)	8.7	8.6	(6.6-10.6)
IV–METRO WEST	12.6	13.1	(10.7-15.4)	8.6	8.9	(6.8-10.9)
V–SOUTH EAST	13.2	13.7	(11.3-16.1)	9.6	9.9	(7.9-12.0)
VI–BOSTON	13.5	13.4	(10.8-16.1)	8.8	9.2	(6.9-11.6)

* Confidence interval presented is for the crude (age specific) rate in the previous column.

** White, Black and Asian race categories refer to non-Hispanic.

Section 4.3: Disability

All respondents were asked about disabilities and activity limitations. Respondents were classified as having a disability or limitation, if for at least one year, (1) they had an impairment that limited activities or caused cognitive difficulties, (2) they used special equipment or required help from others to get around, or (3) reported a disability of any kind.

Respondents were also asked if they had a disability or limitation which required them to need help with routine needs or personal care.

DISABILITY (Table 4.3)

- 21% of Massachusetts adults reported having a disability or limitation
- The percentage of adults reporting a disability increased with increasing age
- The percentage of adults reporting a disability decreased with increasing education and income

DISABILITY/NEED HELP WITH ACTIVITIES (Table 4.3)

- 5% of Massachusetts adults had a disability or limitation that caused them to need help with daily activities
- Women were more than twice as likely as men to have a disability that caused them to need help with daily activities
- The percentage of adults who had a disability and required help with daily activities increased with increasing age, and decreased with increasing education and income

TABLE 4.3 - DISABILITY AMONG MASSACHUSETTS ADULTS, 2002

	HAVE DISABILITY			DISABILITY/NEED HELP WITH ACTIVITIES		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	21.1	21.2 (19.3-23.0)		4.8	4.7 (3.9 - 5.6)	
GENDER						
MALE	20.3	20.9 (18.0-23.7)		2.7	2.9 (1.9 - 3.8)	
FEMALE	21.8	21.4 (19.0-23.8)		6.6	6.2 (4.9 - 7.5)	
AGE GROUP						
18-24	16.9	(10.5-23.3)*		0.2	(0.0 - 0.7)*	
25-34	13.3	(9.5-17.2)*		2.6	(1.2 - 4.0)*	
35-44	15.2	(11.7-18.7)*		3.7	(1.7 - 5.8)*	
45-54	20.9	(17.1-24.8)*		4.8	(2.9 - 6.6)*	
55-64	27.2	(21.6-32.7)*		7.2	(4.4-10.0)*	
65-74	31.0	(24.8-37.2)*		6.6	(3.6 - 9.6)*	
75 AND OLDER	43.1	(35.7-50.6)*		13.6	(9.0-18.3)*	
RACE-ETHNICITY**						
WHITE	21.9	21.4 (19.3-23.4)		4.9	4.6 (3.7 - 5.5)	
BLACK	15.1	17.1 (9.2-25.0)		4.7	4.8 (1.3 - 8.4)	
HISPANIC	21.0	24.1 (17.2-31.0)		6.6	8.8 (4.7-12.9)	
ASIAN	9.9	27.1 (13.9-40.2)		†	† --	
EDUCATION						
< HIGH SCHOOL	31.8	32.6 (25.1-40.2)		15.2	17.6 (10.6-24.7)	
HIGH SCHOOL	24.8	23.3 (19.4-27.2)		5.4	4.9 (3.4 - 6.4)	
COLLEGE 1-3 YRS	21.1	21.3 (17.5-25.0)		4.4	4.4 (2.9 - 5.9)	
COLLEGE 4+ YRS	16.7	17.9 (15.0-20.7)		2.6	2.8 (1.7 - 3.8)	
HOUSEHOLD INCOME						
<\$25,000	35.6	36.3 (31.5-41.1)		13.7	15.3 (11.9-18.8)	
\$25-34,999	21.8	21.5 (15.1-28.0)		4.0	4.7 (1.4 - 8.0)	
\$35-49,999	18.1	19.3 (14.2-24.3)		2.2	1.8 (0.5 - 3.2)	
\$50-74,999	18.6	19.6 (14.6-24.7)		3.7	3.7 (1.2 - 6.2)	
\$75,000+	14.1	15.3 (11.2-19.3)		1.1	1.5 (0.2 - 2.7)	
REGION						
I-WESTERN	24.4	23.9 (18.5-29.4)		5.5	5.4 (3.2 - 7.6)	
II-CENTRAL	20.3	19.7 (15.2-24.3)		4.3	4.0 (2.2 - 5.9)	
III-NORTH EAST	20.3	20.6 (16.4-24.8)		4.9	4.7 (2.6 - 6.9)	
IV-METRO WEST	19.6	18.9 (15.1-22.7)		3.1	2.7 (1.3 - 4.0)	
V-SOUTH EAST	24.0	23.1 (18.8-27.4)		6.7	6.1 (4.2 - 8.1)	
VI-BOSTON	17.8	21.2 (16.5-25.9)		4.9	6.8 (3.8 - 9.7)	

* Confidence interval presented is for the crude (age specific) rate in the previous column.

** White, Black and Asian race categories refer to non-Hispanic.

† Insufficient numbers.

SECTION 5: CANCER SCREENING

Section 5.1: Colorectal Cancer Screening

Respondents ages 50 and older were asked if they had ever had a blood stool test using a home test kit to determine if their stool contained blood. The percentage of those who reported that they had a blood stool test using a home test kit in the past 2 years is presented.

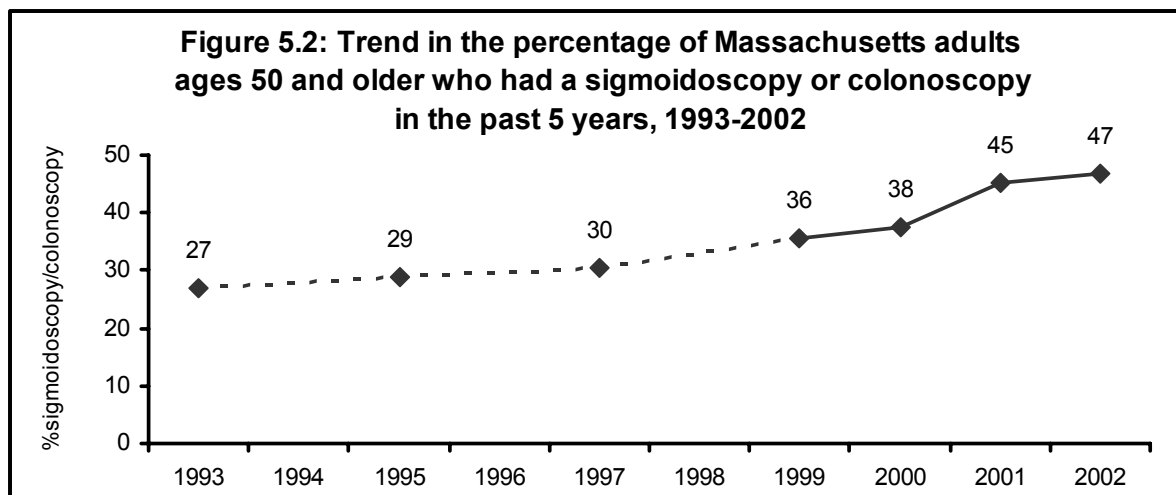
Respondents ages 50 and older were also asked if they had ever had a sigmoidoscopy or colonoscopy, exams in which a tube is inserted in the rectum to view the bowel for signs of cancer or other health problems. The percentage who reported that they had a sigmoidoscopy or colonoscopy in the past 5 years is presented.

BLOOD STOOL TEST IN THE PAST TWO YEARS (Table 5.1)

- 38% of Massachusetts adults ages 50 and older reported having had a blood stool test in the past two years
- Adults ages 60-79 were more likely to have had a blood stool test in the past 2 years than those in the 50-59 or the 80 and older age groups
- Black adults were more likely to have had a blood stool test in the past 2 years than White or Hispanic adults

SIGMOIDOSCOPY OR COLONOSCOPY IN THE PAST FIVE YEARS (Table 5.1)

- 47% of Massachusetts adults ages 50 and older reported having had a sigmoidoscopy or colonoscopy in the past 5 years
- Men were more likely than women to have had a sigmoidoscopy or colonoscopy in the past 5 years
- The percentage of adults ages 50 and older who had had a sigmoidoscopy or colonoscopy in the past 5 years increased with increasing income
- Adults ages 50 and older living in the Metro West region were more likely to have had a sigmoidoscopy or colonoscopy in the past 5 years than adults in other regions of the state
- Since 1993, the percentage of adults ages 50 and older who had a sigmoidoscopy or colonoscopy in the past 5 years has increased (Figure 5.1)



Note: Dotted line signifies year in which question was not asked.

**TABLE 5.1 – COLORECTAL CANCER SCREENING AMONG MASSACHUSETTS ADULTS
AGES 50 AND OLDER, 2002**

	BLOOD STOOL TEST IN THE PAST 2 YEARS			SIGMOIDOSCOPY OR COLONOSCOPY IN PAST 5 YEARS		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	37.7	37.4	(35.3-39.5)	46.7	46.3	(44.1-48.5)
GENDER						
MALE	37.3	37.7	(34.3-41.0)	50.2	50.1	(46.7-53.6)
FEMALE	38.0	37.3	(34.5-40.1)	43.9	43.3	(40.5-46.1)
AGE GROUP						
50-59	32.0		(28.7-35.4)*	37.8		(34.3-41.2)*
60-69	43.0		(38.6-47.3)*	54.7		(50.4-59.1)*
70-79	43.4		(38.9-48.0)*	55.2		(50.7-59.7)*
80 AND OLDER	32.5		(26.3-38.7)*	40.6		(34.2-47.1)*
RACE-ETHNICITY**						
WHITE	37.7	37.4	(35.1-39.6)	47.5	47.1	(44.8-49.4)
BLACK	46.7	45.9	(31.2-60.7)	48.7	46.9	(33.4-60.5)
HISPANIC	34.5	30.7	(21.1-40.3)	34.8	44.1	(34.9-53.2)
ASIAN	†	†	--	†	†	--
EDUCATION						
< HIGH SCHOOL	34.7	32.8	(26.6-39.0)	40.9	37.3	(31.0-43.6)
HIGH SCHOOL	39.3	36.9	(33.0-40.8)	47.5	44.6	(40.4-48.8)
COLLEGE 1-3 YRS	35.7	35.6	(31.2-40.0)	41.3	41.7	(37.2-46.2)
COLLEGE 4+ YRS	38.5	39.0	(35.3-42.7)	51.3	53.0	(49.3-56.8)
HOUSEHOLD INCOME						
<\$25,000	37.2	34.3	(29.8-38.9)	40.8	36.4	(31.8-41.0)
\$25-34,999	38.0	36.9	(30.2-43.5)	43.4	38.4	(32.6-44.2)
\$35-49,999	34.9	34.3	(28.6-40.0)	47.4	48.1	(42.4-53.9)
\$50-74,999	41.2	42.1	(35.9-48.4)	47.5	50.6	(44.0-57.2)
\$75,000+	38.5	43.0	(36.0-50.0)	51.6	53.3	(46.7-59.9)
REGION						
I-WESTERN	36.7	36.5	(30.9-42.1)	43.7	43.7	(37.9-49.5)
II-CENTRAL	37.9	38.5	(32.8-44.1)	44.4	45.1	(39.3-50.9)
III-NORTH EAST	40.6	40.9	(35.7-46.1)	43.3	43.3	(38.1-48.5)
IV-METRO WEST	40.2	39.5	(34.8-44.3)	51.9	51.2	(46.4-56.0)
V-SOUTH EAST	34.1	33.3	(29.1-37.4)	47.0	45.5	(41.1-49.9)
VI-BOSTON	34.8	34.5	(27.9-41.2)	47.8	47.7	(40.7-54.6)

* Confidence interval presented is for the crude (age specific) rate in the previous column.

** White, Black and Asian race categories refer to non-Hispanic.

† Insufficient numbers.

Section 5.2: Prostate Cancer Screening

Men ages 50 and older were asked if they had ever had a Prostate-Specific Antigen (PSA) test, a blood test used to check for prostate cancer. The percentages of those who reported that they had a PSA test in the past year are presented.

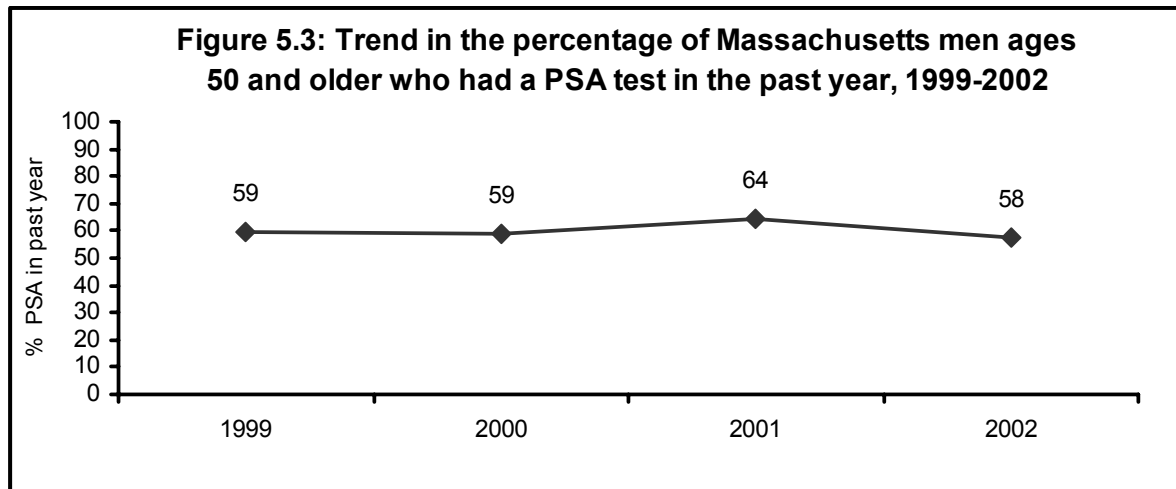
Men ages 50 and older were also asked if they had ever had a Digital Rectal Exam (DRE). A digital rectal exam is an exam in which a doctor, nurse, or other health professional places a gloved finger into the rectum to feel the size, shape, and hardness of the prostate gland. The percentage of those who reported that they had a DRE in the past year is presented.

PSA IN THE PAST YEAR (Table 5.2)

- 58% of Massachusetts men ages 50 and older reported having a PSA in the past year
- The percentage of men who had a PSA in the past year increased with increasing age until age 79 and then decreased
- Men with four or more years of college education were more likely than men with less education to have had a PSA in the past year
- Men ages 50 and older living in the Boston region were less likely than those living in other regions of the state to have had a PSA in the past year
- The trend in the percentage of men reporting having a PSA in the past year has remained relatively stable since 1999 (Figure 5.2)

DRE IN THE PAST YEAR (Table 5.2)

- 62% of Massachusetts men age 50 and older reported having a digital rectal exam in the past year
- Men with the highest levels of education and income were most likely to have had a DRE in the past year
- Men in the Central region of the state were less likely than men in other regions of the state to report having a DRE in the past year



**TABLE 5.2 – PROSTATE CANCER SCREENING AMONG MASSACHUSETTS MEN
AGES 50 AND OLDER, 2002**

	PSA IN PAST YEAR			DRE IN PAST YEAR		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	57.6	57.0 (53.5-60.6)		62.3	61.9 (58.6-65.3)	
GENDER						
MALE	57.6	57.0 (53.5-60.6)		62.3	61.9 (58.6-65.3)	
FEMALE						
AGE GROUP						
50–59	55.0	(49.6-60.3)*		62.7	(57.6-67.7)*	
60–69	61.3	(54.6-68.1)*		64.3	(57.9-70.8)*	
70–79	62.5	(55.1-69.9)*		61.9	(54.7-69.1)*	
80 AND OLDER	44.8	(32.4-57.1)*		54.2	(42.4-66.0)*	
RACE-ETHNICITY**						
WHITE	57.8	57.2 (53.6-60.9)		63.1	62.8 (59.3-66.3)	
BLACK	†	† --		†	† --	
HISPANIC	†	† --		†	† --	
ASIAN	†	† --		†	† --	
EDUCATION						
< HIGH SCHOOL	52.6	51.5 (40.7-62.2)		52.3	48.8 (38.8-58.7)	
HIGH SCHOOL	53.7	51.9 (44.8-59.1)		59.1	59.3 (52.4-66.3)	
COLLEGE 1–3 YRS	52.3	51.1 (43.4-58.9)		56.9	55.4 (47.9-62.8)	
COLLEGE 4+ YRS	63.5	65.0 (59.8-70.1)		69.5	69.8 (64.9-74.7)	
HOUSEHOLD INCOME						
<\$25,000	50.2	46.2 (38.9-53.6)		52.0	48.9 (41.5-56.2)	
\$25–34,999	52.1	51.2 (40.4-62.0)		59.2	57.0 (46.6-67.4)	
\$35–49,999	68.5	66.9 (57.8-75.9)		62.1	60.5 (51.7-69.2)	
\$50–74,999	58.2	59.5 (50.8-68.2)		63.9	64.8 (56.5-73.2)	
\$75,000+	60.0	59.9 (52.2-67.5)		66.2	67.2 (59.9-74.6)	
REGION						
I–WESTERN	55.4	56.3 (47.3-65.3)		61.5	62.2 (53.8-70.6)	
II–CENTRAL	60.3	57.7 (48.9-66.5)		55.8	53.5 (44.6-62.4)	
III–NORTH EAST	53.5	52.4 (44.1-60.7)		59.1	59.3 (51.2-67.3)	
IV–METRO WEST	61.0	60.6 (53.3-67.9)		67.9	68.2 (61.6-74.8)	
V–SOUTH EAST	59.9	59.6 (51.7-67.5)		65.0	63.8 (56.5-71.1)	
VI–BOSTON	50.1	49.0 (38.6-59.4)		61.3	59.6 (49.2-69.9)	

* Confidence interval presented is for the crude (age specific) rate in the previous column.

** White, Black and Asian race categories refer to non-Hispanic.

† Insufficient numbers.

Section 5.3: Breast Cancer Screening

All female respondents were asked about breast cancer screening. Those women who reported that they had ever had a mammogram (an x-ray of each breast to look for cancer) were asked how long it had been since their last mammogram. The percentages of women, ages 40 and older that had a mammogram in the past two years is presented.

All women were also asked if they had ever had a clinical breast exam, an exam in which a doctor, nurse, or other health professional feels the breast for lumps. Those women who reported ever having had a clinical breast exam were asked how long it had been since their last exam. The percentage of women who had a clinical breast exam in the past two years is presented.

MAMMOGRAM IN THE PAST TWO YEARS (Table 5.3)

- 83% of women, ages 40 or older, reported having a mammogram in the past two years
- The percentage of women reporting a mammogram in the past two years was lowest in the 40-49 and 80 and older age groups
- Women with less than a high school education, and women with a household income of less than \$25,000 were least likely to report having had a mammogram in the past two years
- Women in the Boston region were less likely to report having had a mammogram in the past two years than women in any other region of the state
- The percentage of women having had a mammogram in the past 2 years has increased over the past 10 years (Figure 5.3)

CLINICAL BREAST EXAM IN PAST TWO YEARS (Table 5.3)

- 86% of women reported having had a clinical breast exam in the past two years
- Older women (over age 70) and younger women (ages 18-29) were the least likely to report that they had had a CBE in the past 2 years.
- The percentage of women reporting having had a clinical breast exam in the past 2 years increased with increasing education and income

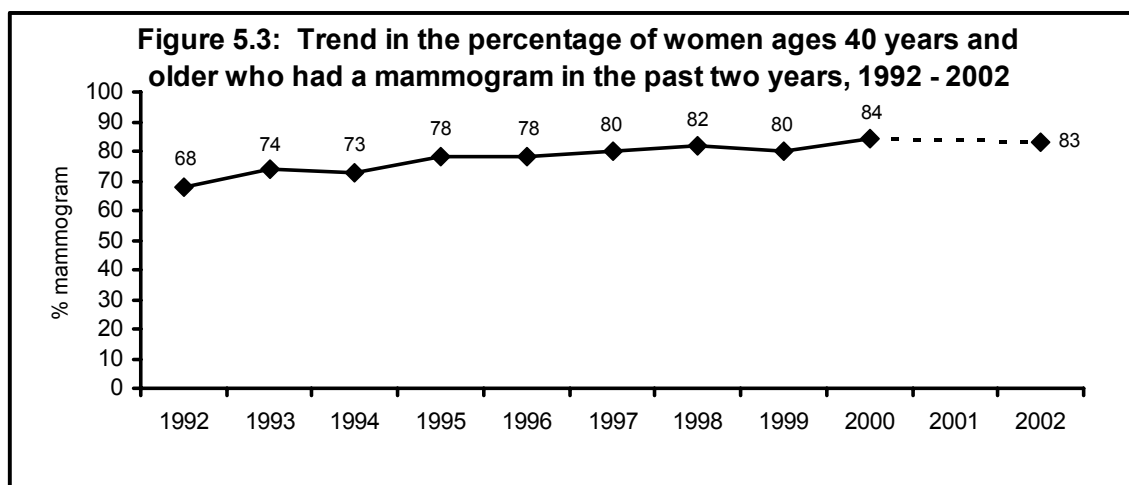


TABLE 5.3 – BREAST CANCER SCREENING AMONG MASSACHUSETTS WOMEN, 2002

	MAMMOGRAM IN PAST TWO YEARS, AMONG WOMEN AGES 40+			CLINICAL BREAST EXAM IN PAST TWO YEARS		
	CRUDE %	AGE-ADJUSTED %	95% CI	CRUDE %	AGE-ADJUSTED %	95% CI
OVERALL	83.2	83.1	(81.4-84.7)	85.7	85.9	(84.5-87.2)
GENDER						
MALE						
FEMALE	83.2	83.1	(81.4-84.7)	85.7		(84.5-87.2)
AGE GROUP						
18–29				83.1		(79.2-87.0)*
30–39				87.4		(84.7-90.0)*
40–49	78.3		(75.1-81.5)*	91.2		(88.8-93.5)*
50–59	89.5		(86.7-92.3)*	87.1		(83.6-90.6)*
60–69	89.9		(86.6-93.1)*	87.0		(83.4-90.7)*
70–79	82.4		(77.9-86.9)*	81.2		(76.8-85.6)*
80 AND OLDER	69.9		(63.0-76.8)*	67.0		(59.4-74.6)*
RACE-ETHNICITY**						
WHITE	83.2	83.1	(81.3-84.8)	87.3	87.7	(86.2-89.1)
BLACK	81.5	81.0	(71.0-91.0)	83.3	83.3	(76.3-90.3)
HISPANIC	85.6	87.2	(81.8-92.7)	79.4	81.4	(76.7-86.1)
ASIAN	†	†	--	66.0	71.2	(58.9-83.6)
EDUCATION						
< HIGH SCHOOL	75.7	78.1	(71.8-84.4)	74.9	75.8	(70.3-81.3)
HIGH SCHOOL	83.9	83.7	(80.5-86.9)	82.1	82.6	(79.5-85.6)
COLLEGE 1–3 YRS	84.0	83.8	(80.5-87.2)	87.6	87.9	(85.5-90.3)
COLLEGE 4+ YRS	84.1	84.3	(81.5-87.1)	89.3	88.7	(86.6-90.9)
HOUSEHOLD INCOME						
<\$25,000	78.1	77.1	(72.6-81.5)	78.6	78.2	(74.5-81.8)
\$25–34,999	81.9	80.8	(74.9-86.6)	82.5	83.4	(78.9-88.0)
\$35–49,999	84.7	84.5	(79.7-89.2)	85.1	83.7	(79.4-88.0)
\$50–74,999	84.7	85.8	(81.3-90.3)	92.4	92.3	(89.5-95.1)
\$75,000+	†	†	--	92.3	92.1	(89.1-95.1)
REGION						
I–WESTERN	84.4	84.6	(80.7-88.5)	85.9	86.1	(82.4-89.7)
II–CENTRAL	79.4	80.3	(75.6-85.0)	84.5	84.8	(81.3-88.4)
III–NORTH EAST	85.3	85.6	(81.8-89.3)	86.5	86.8	(83.7-89.8)
IV–METRO WEST	84.2	83.5	(80.0-87.1)	88.0	87.6	(84.5-90.6)
V–SOUTH EAST	84.4	84.2	(80.7-87.6)	83.8	83.8	(80.5-87.1)
VI–BOSTON	75.3	75.3	(69.8-80.8)	84.5	85.4	(82.1-88.7)

* Confidence interval presented is for the crude (age specific) rate in the previous column.

** White, Black and Asian race categories refer to non-Hispanic.

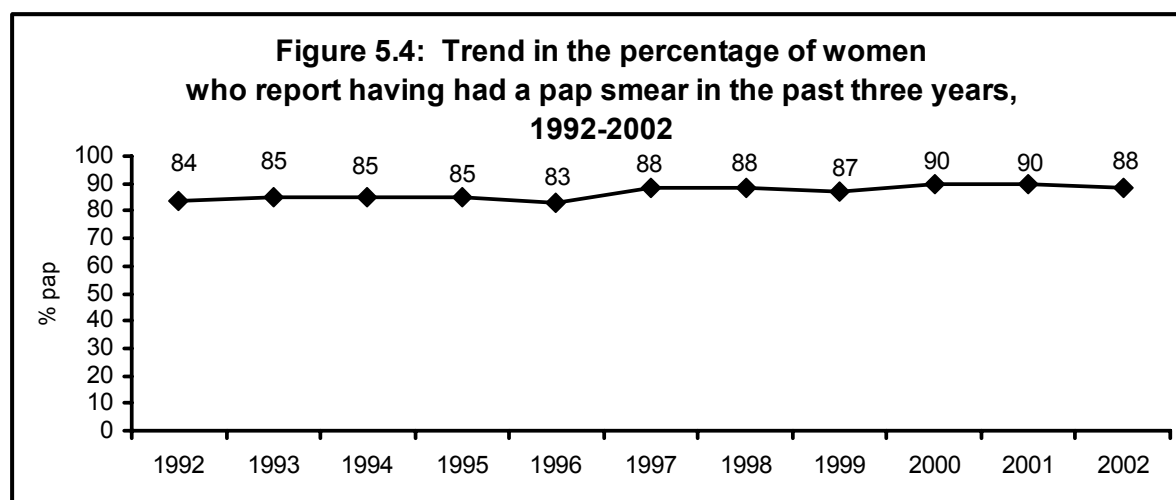
† Insufficient numbers

Section 5.4: Cervical Cancer Screening*

All women were asked if they had ever had a Pap smear, a screening test for cancer of the cervix. Those who reported that they had a Pap smear were then asked how long it had been since their last pap smear. The percentage of women who reported having had a pap smear in the past 3 years is presented.

PAP SMEAR IN PAST 3 YEARS (Table 5.4)

- 88% of Massachusetts women reported having had a pap smear in the past 3 years
- The percent of women having had a pap smear in the past 3 years was lowest in the youngest (18-24) and oldest (75+) age groups
- Asian women were less likely to have had a pap smear in the past 3 years than women in other race-ethnicity groups
- The percentage of women having had a pap smear in the past 3 years increased with increasing education and income
- Since 1997, the trend in the percentage of women reporting that they had a pap smear in the past 3 years has remained relatively stable (Figure 5.4)



*The Massachusetts cervical cancer screening rates differ slightly from those published by the CDC. Women who have had a hysterectomy are removed from the analysis in Massachusetts calculations, but included in CDC calculations.

TABLE 5.4 – CERVICAL CANCER SCREENING AMONG MASSACHUSETTS ADULTS, 2002

	PAP SMEAR TEST WITHIN PAST 3 YRS	
	CRUDE %	AGE-ADJUSTED % 95% CI
OVERALL	88.2	87.7 (86.3-89.1)
GENDER		
MALE		
FEMALE	88.2	87.7 (86.3-89.1)
AGE GROUP		
18–24	80.8	(74.9-86.7)*
25–34	93.1	(90.8-95.4)*
35–44	94.5	(92.7-96.4)*
45–54	91.3	(88.6-93.9)*
55–64	88.8	(84.9-92.6)*
65–74	81.1	(75.7-86.5)*
75 AND OLDER	63.9	(56.9-70.9)*
RACE-ETHNICITY**		
WHITE	89.4	88.9 (87.4-90.4)
BLACK	84.8	83.3 (75.2-91.5)
HISPANIC	87.0	86.3 (81.0-91.6)
ASIAN	66.5	65.2 (50.0-80.4)
EDUCATION		
< HIGH SCHOOL	79.1	80.8 (75.7-86.0)
HIGH SCHOOL	84.1	85.1 (82.1-88.2)
COLLEGE 1–3 YRS	88.1	88.3 (85.8-90.8)
COLLEGE 4+ YRS	92.6	90.7 (88.6-92.8)
HOUSEHOLD INCOME		
<\$25,000	80.8	81.7 (78.2-85.3)
\$25–34,999	85.5	84.7 (79.9-89.6)
\$35–49,999	88.2	86.6 (82.3-90.8)
\$50–74,999	94.4	93.1 (89.8-96.4)
\$75,000+	95.3	93.6 (90.2-97.0)
REGION		
I–WESTERN	89.0	88.3 (84.9-91.7)
II–CENTRAL	85.6	84.7 (80.7-88.6)
III–NORTH EAST	90.0	89.9 (87.0-92.8)
IV–METRO WEST	88.7	87.7 (84.6-90.8)
V–SOUTH EAST	87.9	87.9 (84.9-91.0)
VI–BOSTON	86.7	87.1 (83.4-90.7)

* Confidence interval presented is for the crude (age specific) rate in the previous column.

** White, Black and Asian race categories refer to non-Hispanic.

SECTION 6: WOMEN'S HEALTH

Section 6.1: Calcium Intake and Osteoporosis in Women

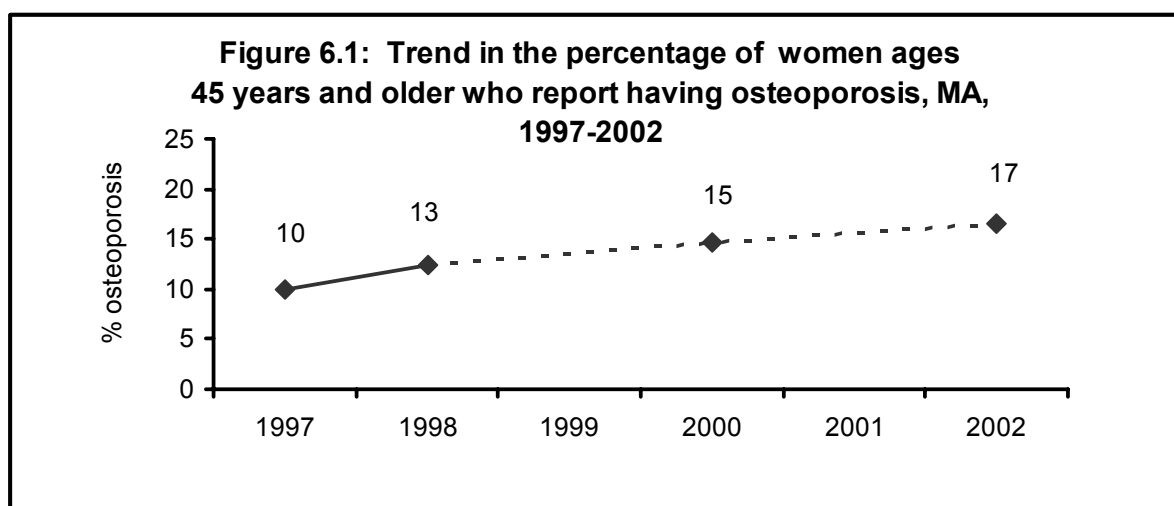
All women were asked about their daily calcium consumption. Sufficient calcium intake was defined as consuming three or more servings of dairy products per day or consuming 1-2 servings of dairy products per day plus regularly taking a calcium supplement. Women, ages 45 and older, were asked if they had ever been told that they had osteoporosis.

SUFFICIENT CALCIUM INTAKE, ALL WOMEN (Table 6.1)

- 42% of Massachusetts women reported sufficient calcium intake
- Women in the 65-74 year age group were the most likely to consume sufficient calcium
- White women were more likely to report sufficient calcium intake than any other race-ethnicity group
- Women living in the Western and Central regions of the state were more likely to report sufficient calcium intake than women living in other regions of the state

OSTEOPOROSIS, WOMEN AGES 45+ (Table 6.1)

- 17% of women reported that they had ever been told by a doctor that they had osteoporosis
- Women age 65 and older were more likely to have ever been told by a doctor they had osteoporosis than younger women
- The percentage women reporting osteoporosis decreased with increasing income
- The percentage of women reporting that they had Osteoporosis has increased over the past 5 years (Figure 6.1)



Note: Dotted line signifies year in which question was not asked.

TABLE 6.1 – CALCIUM INTAKE AND OSTEOPOROSIS AMONG MASSACHUSETTS WOMEN, 2002

	SUFFICIENT CALCIUM, ALL WOMEN			OSTEOPOROSIS, WOMEN AGES 45+		
	CRUDE %	AGE-ADJUSTED %	95% CI	CRUDE %	AGE-ADJUSTED %	95% CI
OVERALL	41.8	41.4	(39.0-43.8)	16.6	16.0	(13.8-18.2)
GENDER						
MALE						
FEMALE	41.8	41.4	(39.0-43.8)	16.6	16.0	(13.8-18.2)
AGE GROUP						
18–24	32.7		(24.4-41.1)*			
25–34	40.1		(34.5-45.8)*			
35–44	38.4		(33.5-43.4)*			
45–54	40.5		(35.2-45.9)*	6.3		(3.5 - 9.1)*
55–64	46.9		(40.3-53.5)*	15.0		(10.6-19.4)*
65–74	54.9		(47.7-62.1)*	24.3		(18.6-30.1)*
75 AND OLDER	44.6		(37.4-51.8)*	30.1		(23.4-36.8)*
RACE-ETHNICITY**						
WHITE	43.6	42.8	(40.2-45.5)	16.6	15.7	(13.4-18.0)
BLACK	23.1	23.0	(13.6-32.5)	†	†	--
HISPANIC	33.4	34.6	(25.9-43.4)	18.5	23.8	(12.4-35.2)
ASIAN	26.7	37.5	(26.2-48.8)	†	†	--
EDUCATION						
< HIGH SCHOOL	37.4	38.0	(27.9-48.1)	17.7	16.7	(9.9-23.5)
HIGH SCHOOL	41.6	40.2	(35.6-44.8)	17.9	15.5	(11.8-19.3)
COLLEGE 1–3 YRS	42.3	41.7	(37.1-46.4)	16.5	16.3	(11.6-21.0)
COLLEGE 4+ YRS	42.3	42.4	(38.4-46.3)	15.2	17.1	(13.0-21.2)
HOUSEHOLD INCOME						
<\$25,000	43.6	41.6	(36.5-46.8)	20.3	17.3	(12.8-21.8)
\$25–34,999	45.5	46.6	(39.4-53.8)	10.9	9.9	(4.9-14.9)
\$35–49,999	40.8	40.5	(33.9-47.1)	15.7	16.7	(10.4-23.0)
\$50–74,999	39.5	39.4	(32.2-46.6)	11.8	18.2	(9.3-27.0)
\$75,000+	38.4	36.6	(30.8-42.3)	9.6	10.1	(5.3-14.8)
REGION						
I–WESTERN	48.0	47.5	(40.9-54.0)	15.0	14.6	(9.1-20.2)
II–CENTRAL	49.1	47.7	(41.4-54.0)	15.7	15.3	(10.0-20.6)
III–NORTH EAST	38.6	38.7	(33.2-44.3)	17.5	17.4	(12.3-22.5)
IV–METRO WEST	41.3	39.9	(34.6-45.3)	17.0	17.4	(11.8-23.0)
V–SOUTH EAST	40.5	38.6	(33.4-43.9)	16.7	14.8	(11.0-18.7)
VI–BOSTON	34.4	34.9	(29.0-40.8)	16.6	15.6	(8.9-22.4)

* Confidence interval presented is for the crude (age specific) rate in the previous column.

** White, Black and Asian race categories refer to non-Hispanic.

† Insufficient numbers.

Section 6.2: Family planning

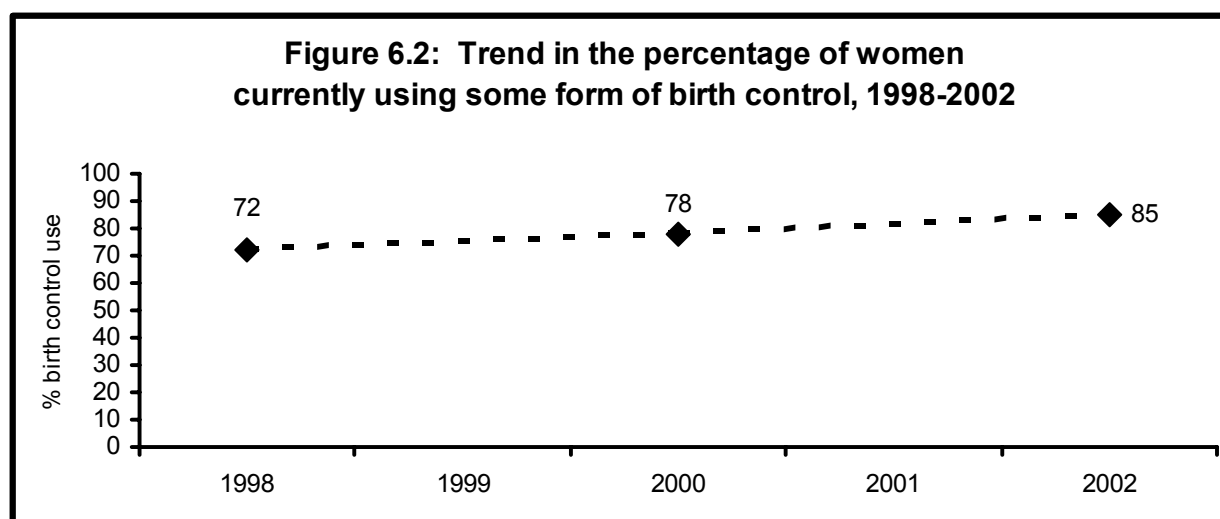
All women ages 18-44 who were currently pregnant, or had been pregnant in the past five years were asked if they had wanted to be pregnant sooner, later, or not at all. Unplanned pregnancy was defined as wanting to be pregnant later or not at all. Women ages 18-44 who had not had a hysterectomy and were not currently pregnant were also asked what type of birth control they were currently using.

UNPLANNED PREGNANCY (Table 6.2)

- 25% of women ages 18-44 who were currently pregnant or had been pregnant in the past 5 years reported that they had an unplanned pregnancy
- Women ages 18-24 were five times more likely to report an unplanned pregnancy in the past 5 years than women ages 35-44
- The percentage of women who had an unplanned pregnancy in the past 5 years decreased with increasing age, education, and income
- Women ages 18-44 living in the South East region of Massachusetts were more likely to report an unplanned pregnancy in the past 5 years than those living in other regions of the state

USE BIRTH CONTROL (Table 6.2)

- 85% of Massachusetts women ages 18-44 reported that they or their partner use some form of birth control
- The percentage of women ages 18-44 who reported using some form of birth control decreased with increasing age, with 93% of women ages 18-24 reporting that they use some form of birth control, but only 78% of women ages 35-44 reporting use of birth control
- Women with less than a high school education and those with 4 or more years of college were most likely to report using birth control
- The percentage of women ages 18-44 reporting use of some form of birth control has increased from 1998 to 2002 (Figure 6.2)



Note: Dotted line signifies year in which question was not asked.

TABLE 6.2 – FAMILY PLANNING AMONG MASSACHUSETTS WOMEN, AGES 18-44, 2002

	UNPLANNED PREGNANCY			USE BIRTH CONTROL		
	CRUDE %	AGE-ADJUSTED %	95% CI	CRUDE %	AGE-ADJUSTED %	95% CI
OVERALL	24.9	26.9	(22.8-31.0)	84.7	84.8	(82.7-86.9)
GENDER						
MALE						
FEMALE	24.9	26.9	(22.8-31.0)	84.7	84.8	(82.7-86.9)
AGE GROUP						
18–24	61.8		(48.7-75.0)*	93.1		(88.6-97.6)*
25–34	20.5		(15.6-25.3)*	87.8		(84.6-90.1)*
35–44	11.6		(6.9-16.4)*	77.5		(73.9-81.1)*
RACE-ETHNICITY**						
WHITE	21.6	27.4	(12.3-31.6)	85.6	86.0	(83.6-88.4)
BLACK	†	†	--	83.7	84.0	(73.7-94.4)
HISPANIC	35.0	30.1	(18.8-41.5)	81.8	78.0	(70.5-85.4)
ASIAN	†	†	--	77.7	73.1	(59.0-87.2)
EDUCATION						
< HIGH SCHOOL	45.3	30.0	(17.1-43.0)	87.8	84.9	(76.5-93.3)
HIGH SCHOOL	33.7	33.6	(24.3-43.0)	77.8	78.0	(72.8-83.2)
COLLEGE 1–3 YRS	30.1	26.8	(18.8-34.7)	83.1	82.3	(77.9-86.7)
COLLEGE 4+ YRS	13.6	33.2	(30.0-36.4)	88.5	90.0	(87.7-92.4)
HOUSEHOLD INCOME						
<\$25,000	44.7	35.5	(26.0-44.9)	85.4	81.8	(76.2-87.3)
\$25–34,999	32.8	29.0	(17.7-40.3)	84.6	82.7	(75.2-90.2)
\$35–49,999	24.5	36.6	(29.3-43.9)	83.8	84.7	(79.8-89.7)
\$50–74,999	12.8	19.9	(7.2-32.6)	86.3	87.5	(83.3-91.7)
\$75,000+	12.7	33.5	(29.4-37.6)	85.4	87.0	(82.9-91.1)
REGION						
I–WESTERN	29.1	21.9	(13.4-30.4)	85.9	86.5	(80.9-92.1)
II–CENTRAL	26.3	30.0	(19.9-40.2)	89.0	90.0	(86.1-94.0)
III–NORTH EAST	27.2	30.5	(22.7-38.4)	81.2	81.3	(75.5-87.0)
IV–METRO WEST	10.0	21.6	(11.3-32.0)	86.0	86.6	(82.4-90.8)
V–SOUTH EAST	36.5	38.5	(28.6-48.3)	79.5	80.0	(74.2-85.9)
VI–BOSTON	29.0	29.2	(18.5-39.9)	87.9	85.0	(79.9-90.1)

* Confidence interval presented is for the crude (age specific) rate in the previous column.

** White, Black and Asian race categories refer to non-Hispanic.

† Insufficient numbers.

SECTION 7: CHILDHOOD HEALTH

Section 7.1: Asthma in Children

Respondents who reported that they had children (ages 17 or younger) living in their household were asked if these children had ever been diagnosed with asthma and if these children currently had asthma. The percentage of children who currently had asthma is presented here.

EVER HAD ASTHMA

- Over 14% of all children were reported to have ever been diagnosed with asthma (data not shown)

CURRENTLY HAVE ASTHMA (Table 7.1)

- Overall, 10% of all children were reported to have current asthma
- The percentage of children who currently had asthma was lowest in children 0-4 years old
- Asthma rates among children were lowest in the Central region of Massachusetts

TABLE 7.1 – CURRENT ASTHMA IN CHILDREN, 2002		
	CRUDE %	95% CI
OVERALL	9.7	(8.2-11.1)
AGE GROUP		
0-4	5.1	(3.3-6.8)
5-9	10.3	(7.8-12.8)
10-14	11.9	(9.2-14.5)
15-17	11.5	(8.2-14.8)
HOUSEHOLD INCOME*		
<\$25,000	11.1	(7.6-14.6)
\$25–34,999	10.4	(5.7-15.1)
\$35–49,999	6.5	(3.5-9.4)
\$50–74,999	14.2	(10.5-17.8)
\$75,000+	7.1	(5.3-8.9)
REGION*		
I–WESTERN	11.0	(6.8-15.2)
II–CENTRAL	8.3	(5.5-11.1)
III–NORTH EAST	9.5	(6.9-12.2)
IV–METRO WEST	8.7	(6.0-11.4)
V–SOUTH EAST	9.5	(6.5-12.4)
VI–BOSTON	11.0	(7.1-15.0)

*Demographic characteristics are based on the characteristics of the respondent rather than the child.

Section 7.2: Health Care Access for Children

Respondents who reported that they had children living in their household were asked questions about health insurance and healthcare for a randomly selected child in the household. Reported here are the percentages of children who did not have any type of health coverage including HMOs, Medicaid, MassHealth, or Children's Medical Security.

HEALTH CARE ACCESS (Table 7.2)

- Overall, 1% of respondents reported that a randomly selected child in their household did not have any type of healthcare coverage
- Children living in a household with an income of less than \$35,000 were less likely to have health care coverage than children from families with a higher income
- Children in the Western region of the state were least likely to have healthcare coverage, compared with children living in other regions of the state

TABLE 7.2 – HEALTH CARE ACCESS FOR CHILDREN, 2002		
	CRUDE %	95% CI
OVERALL	1.2	(0.5-2.0)
AGE GROUP*		
0-4	1.2	(0.0-2.7)
5-9	1.3	(0.3-2.3)
10-14	1.0	(0.2-1.9)
15-17	1.6	(0.0-4.1)
HOUSEHOLD INCOME*		
<\$25,000	2.9	(0.0-5.8)
\$25-34,999	2.6	(0.2-5.0)
\$35-49,999	1.2	(0.0-2.7)
\$50-74,999	†	--
\$75,000+	0.7	(0.0-1.9)
REGION		
I-WESTERN	2.9	(0.0-6.6)
II-CENTRAL	1.9	(0.0-4.6)
III-NORTH EAST	1.6	(0.3-2.9)
IV-METRO WEST	†	--
V-SOUTH EAST	0.7	(0.0-1.4)
VI-BOSTON	1.4	(0.0-3.2)

*Demographic characteristics are based on the characteristics of the respondent rather than the child.

† Insufficient numbers.

Section 7.3: Dental Sealant and Children

Respondents who reported that they had a child between the ages of 6-17 in their household were asked if the child had ever received dental sealant on his or her permanent teeth. A dental sealant is a clear or white plastic-like material that is painted on a child's back teeth by a dentist or hygienist to prevent tooth decay. Presented here is the percentage of children who had dental sealant put on their permanent teeth.

DENTAL SEALANTS (Table 7.3)

- Overall, 61% of respondents reported that a randomly selected child in their household had dental sealant on his or her permanent teeth
- Children ages 10 and over were more likely to have had dental sealant than children under age 10
- The percentage of children with dental sealant on their teeth increased with increasing household income
- Children living in the Boston region were least likely to have dental sealant, compared with children living in other regions of the state

TABLE 7.3 – DENTAL SEALANT AND CHILDREN, 2002		
	CRUDE %	95% CI
OVERALL	61.1	(57.0-65.2)
AGE GROUP		
6-9	42.0	(34.4-49.6)
10-14	70.2	(64.5-76.0)
15-17	70.6	(63.2-78.0)
HOUSEHOLD INCOME*		
<\$25,000	44.5	(34.0-55.0)
\$25-34,999	42.4	(27.8-57.0)
\$35-49,999	65.6	(54.7-76.5)
\$50-74,999	62.0	(51.4-72.7)
\$75,000+	72.7	(66.7-78.7)
REGION*		
I-WESTERN	54.8	(43.4-66.1)
II-CENTRAL	61.6	(52.2-70.9)
III-NORTH EAST	69.6	(61.7-77.4)
IV-METRO WEST	69.8	(61.2-78.4)
V-SOUTH EAST	56.1	(46.1-66.1)
VI-BOSTON	43.1	(30.8-55.4)

*Demographic characteristics are based on the characteristics of the respondent rather than the child.

SECTION 8: OTHER TOPICS

Section 8.1: HIV Testing

All respondents under age 65 were asked if they had ever been tested for HIV. Respondents were told not to include times that HIV testing had been done as part of a blood donation. Respondents who reported that they had ever been tested for HIV were asked the date of their most recent HIV test.

EVER TESTED FOR HIV (Table 8.1)

- 47% of Massachusetts adults had ever been tested for HIV
- Adults ages 25-44 were more likely to have ever been tested for HIV than adults in other age groups
- Black adults were more likely to have ever been tested for HIV than those in other race-ethnicity groups
- Adults with a college education were just as likely to have ever been tested for HIV as those with less than a high school education
- Adults in the Boston region were more likely than adults in any other region to have ever been tested for HIV
- The percentage of Massachusetts adults reporting that they have ever been tested for HIV increased between 1993-1999, and leveled off thereafter (Figure 8.1)

TESTED FOR HIV IN PAST YEAR (Table 8.1)

- 13% of Massachusetts adults reported having been tested for HIV in the past year
- Massachusetts adults ages 18-34 were more likely than older adults to have been tested for HIV in the past year
- Black and Hispanic adults were more likely to have been tested for HIV in the past year than White or Asian adults
- Adults with less than a high school education or a household income under \$25,000 were more likely to have been tested for HIV in the past year than those with more education and higher income

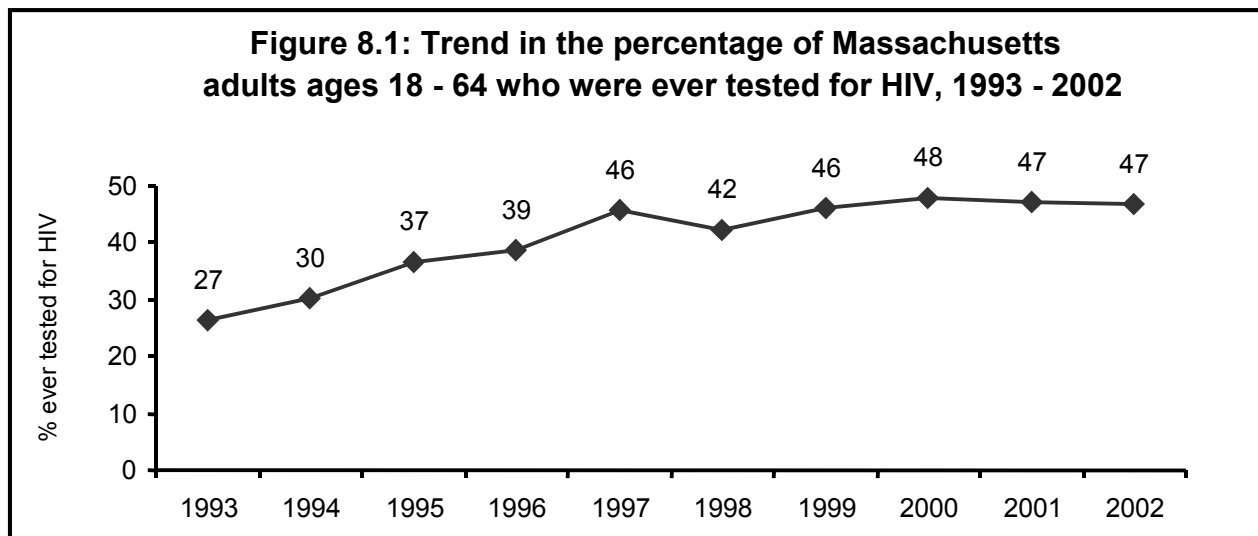


Table 8.1 – HIV testing among Massachusetts Adults, ages 18-64, 2002						
	EVER TESTED FOR HIV			TESTED FOR HIV IN THE PAST YEAR		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	47.0	46.9 (45.3-48.5)		12.7	12.56 (11.4-13.8)	
GENDER						
MALE	46.3	46.1 (43.6-48.6)		13.5	13.29 (11.4-15.2)	
FEMALE	47.7	47.8 (45.8-49.9)		11.9	11.91 (10.4-13.4)	
AGE GROUP						
18–24	43.9	(38.5-49.2)*		21.8	(17.1-26.6)*	
25–34	62.8	(59.4-66.1)*		17.4	(14.7-20.1)*	
35–44	55.0	(52.0-58.1)*		10.7	(8.8-12.7)*	
45–54	39.2	(35.9-42.4)*		8.2	(6.2-10.1)*	
55–64	22.6	(19.3-25.8)*		5.1	(3.1 - 7.0)*	
RACE-ETHNICITY**						
WHITE	45.0	45.7 (43.9-47.6)		10.7	15.2 (9.7-12.5)	
BLACK	72.4	71.5 (63.3-79.7)		27.3	41.7 (19.7-37.9)	
HISPANIC	58.1	55.2 (49.9-60.5)		23.5	27.0 (15.9-24.5)	
ASIAN	34.2	34.4 (22.7-46.1)		12.9	10.9 (4.9-14.0)	
EDUCATION						
< HIGH SCHOOL	48.8	49.2 (43.0-55.4)		19.5	21.6 (12.6-22.2)	
HIGH SCHOOL	43.7	44.6 (41.3-47.9)		13.3	17.3 (10.9-15.8)	
COLLEGE 1–3 YRS	47.3	47.8 (44.5-51.0)		13.2	17.8 (10.3-15.0)	
COLLEGE 4+ YRS	48.5	47.2 (44.7-49.8)		10.9	15.1 (9.0-12.6)	
HOUSEHOLD INCOME						
<\$25,000	53.2	53.4 (49.5-57.3)		19.3	22.4 (14.0-20.2)	
\$25–34,999	46.5	46.2 (41.0-51.4)		13.9	18.4 (10.0-17.5)	
\$35–49,999	48.3	47.5 (43.1-51.9)		12.0	17.3 (9.0-15.6)	
\$50–74,999	40.9	40.3 (36.3-44.3)		9.4	12.9 (6.8-12.6)	
\$75,000+	49.7	48.8 (45.5-52.2)		11.8	17.7 (9.7-15.3)	
REGION						
I–WESTERN	45.6	46.3 (41.9-50.7)		14.3	18.4 (10.9-17.7)	
II–CENTRAL	46.3	46.9 (42.8-51.0)		12.8	17.6 (9.8-16.3)	
III–NORTH EAST	45.6	45.3 (41.5-49.0)		12.6	16.4 (9.6-15.1)	
IV–METRO WEST	48.5	47.9 (44.2-51.6)		10.6	15.1 (7.8-13.3)	
V–SOUTH EAST	43.7	45.0 (41.4-48.7)		10.4	15.0 (8.2-13.6)	
VI–BOSTON	54.7	53.1 (48.9-57.2)		18.8	23.3 (13.8-20.5)	

* Confidence interval presented is for the crude (age specific) rate in the previous column.

** White, Black and Asian race categories refer to non-Hispanic.

Section 8.2: Firearms

All respondents were asked whether firearms were kept in or around their home. Respondents were asked to include weapons such as pistols, shotguns, and rifles; but not BB guns, starter pistols, or guns that cannot be fired. They were also asked to include those kept in a garage, outdoor storage area, or motor vehicle. The percentages of Massachusetts adults ages 18 and older who reported that firearms were kept in their home is presented here.

FIREARMS (Table 8.2)

- 13% of Massachusetts adults reported that firearms were kept in or around their homes
- Men were twice as likely as women to report keeping firearms in or around their home
- Adults in the 55-64 age group were the most likely to keep firearms in or around their home compared with other age groups
- White adults were more likely than adults in other race-ethnicity groups to report keeping firearms in or around their home
- Adults in the Western region of the state were more likely than adults in other regions of the state to report keeping guns in or around their home

TABLE 8.2 – FIREARMS AMONG MASSACHUSETTS ADULTS, 2002

	ANY FIREARMS NOW KEPT IN OR AROUND HOME		
	CRUDE %	AGE-ADJUSTED %	95% CI
OVERALL	12.9	13.0	(11.9-14.0)
GENDER			
MALE	18.0	18.2	(16.3-20.0)
FEMALE	8.4	8.6	(7.5 -9 .8)
AGE GROUP			
18–24	12.2		(8.2-16.3)*
25–34	8.5		(6.5-10.5)*
35–44	13.6		(11.4-15.7)*
45–54	14.3		(11.8-16.7)*
55–64	19.6		(16.3-23.0)*
65–74	11.4		(8.6-14.3)*
75 AND OLDER	11.8		(8.6-14.9)*
RACE-ETHNICITY**			
WHITE	14.2	14.2	(13.0-15.4)
BLACK	5.4	6.2	(2.2-10.2)
HISPANIC	4.4	4.6	(2.3 - 6.9)
ASIAN	8.7	10.1	(2.0-18.2)
EDUCATION			
< HIGH SCHOOL	9.8	10.0	(5.9-14.0)
HIGH SCHOOL	16.3	16.5	(14.1-18.9)
COLLEGE 1–3 YRS	13.9	14.2	(12.1-16.3)
COLLEGE 4+ YRS	10.8	11.1	(9.4-12.7)
HOUSEHOLD INCOME			
<\$25,000	8.6	8.7	(6.5-10.9)
\$25–34,999	12.6	12.8	(9.5-16.0)
\$35–49,999	15.9	16.3	(13.3-19.2)
\$50–74,999	16.4	15.8	(12.9-18.8)
\$75,000+	15.0	16.0	(13.2-18.8)
REGION			
I–WESTERN	22.9	22.8	(19.2-26.4)
II–CENTRAL	16.0	15.8	(12.8-18.8)
III–NORTH EAST	10.6	10.7	(8.4-13.1)
IV–METRO WEST	8.8	8.9	(6.9-10.8)
V–SOUTH EAST	14.7	14.6	(12.2-17.0)
VI–BOSTON	5.5	6.0	(3.8 - 8.2)

* Confidence interval presented is for the crude (age specific) rate in the previous column.

** White, Black and Asian race categories refer to non-Hispanic.

Table 8.3: Illicit Drug Use

All respondents were asked if they had ever, even if only once, used marijuana, powder cocaine, crack cocaine, hallucinogens, Oxycontin, or sedatives or tranquilizers that were not prescribed to them. Respondents ages 18-35, were also asked if they had ever used MDMA/Ecstasy. All respondents were also asked how long it had been since they had last used any of these drugs. Presented here are the percentages of adults who reported having ever used any of these illicit drugs and the percentages of adults who reported having used any of these illicit drugs within the past 30 days.

EVER USED ILLICIT DRUGS (Table 8.3)

- 48% of Massachusetts adults reported that they had ever used illicit drugs
- More men than women reported that they had ever used illicit drugs
- White adults were more likely to report having ever used illicit drugs than all other race-ethnicity groups
- Adults living in the Boston region were the most likely to report having ever used illicit drugs compared with adults living in other regions of the state

USED ILLICIT DRUGS IN THE PAST 30 DAYS (Table 8.3)

- 8% of Massachusetts adults reported illicit drug use in the past 30 days
- Men were more likely than women to report having used illicit drugs in the past 30 days
- Illicit drug use in the past 30 days decreased with increasing age
- Black adults were more likely to report illicit drug use in the past 30 days than any other race-ethnicity group
- Illicit drug use in the past 30 days decreased with increasing education
- Adults with a household income less than \$50,000 were more likely to report use of illicit drugs in the past 30 days than adults with a household income above \$50,000
- Adults living in the Boston region of the state were nearly twice as likely to report having used illicit drugs in the past 30 days than adults in other regions of the state

TABLE 8.3 – ILLICIT DRUG USE AMONG MASSACHUSETTS ADULTS, 2002

	EVER USED ILLICIT DRUGS			USED ILLICIT DRUGS IN THE PAST 30 DAYS		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	47.9	48.7 (46.6-50.7)		8.1	8.4 (7.1 - 9.7)	
GENDER						
MALE	51.8	51.3 (48.1-54.5)		10.4	10.3 (8.1-12.4)	
FEMALE	44.5	46.4 (43.7-49.1)		6.1	6.6 (5.1 - 8.2)	
AGE GROUP						
18–24	61.0	(53.0-68.9)*		30.6	(22.9-38.4)*	
25–34	56.7	(51.7-61.6)*		9.2	(6.4-12.0)*	
35–44	63.9	(59.6-68.2)*		6.3	(4.2 - 8.3)*	
45–54	63.4	(58.7-68.2)*		6.0	(3.7 - 8.3)*	
55–64	33.2	(27.4-38.9)*		1.4	(0.4 - 2.4)*	
65–74	10.4	(6.3-14.5)*		1.4	(0.0 - 3.2)*	
75 AND OLDER	1.7	(0.0 - 3.3)*		0.1	(0.0 - 0.4)*	
RACE-ETHNICITY**						
WHITE	51.0	53.3 (51.1-55.6)		8.0	9.1 (7.6-10.7)	
BLACK	40.0	38.8 (29.5-48.0)		12.8	12.7 (6.0-19.4)	
HISPANIC	34.8	27.5 (20.6-34.4)		8.8	6.0 (2.0-10.1)	
ASIAN	14.9	18.2 (4.7-31.8)		3.9	2.6 (0.1 - 5.0)	
EDUCATION						
< HIGH SCHOOL	27.8	33.1 (25.3-40.9)		10.9	10.8 (6.1-15.5)	
HIGH SCHOOL	41.2	45.7 (41.5-49.9)		9.5	10.2 (7.3-13.1)	
COLLEGE 1–3 YRS	55.1	54.2 (50.2-58.2)		8.5	8.1 (5.7-10.4)	
COLLEGE 4+ YRS	52.2	50.6 (47.2-54.1)		6.3	7.2 (5.0 - 9.4)	
HOUSEHOLD INCOME						
<\$25,000	38.6	45.4 (40.4-50.5)		8.9	8.7 (5.6-11.7)	
\$25–34,999	41.1	45.6 (39.3-51.8)		13.0	12.9 (9.0-16.8)	
\$35–49,999	48.7	49.3 (43.4-55.1)		10.4	11.4 (7.3-15.5)	
\$50–74,999	59.1	55.0 (49.7-60.4)		5.2	5.6 (2.9 - 8.2)	
\$75,000+	58.3	53.0 (48.3-57.7)		6.5	7.7 (4.4-11.0)	
REGION						
I–WESTERN	46.9	48.5 (42.8-54.2)		6.5	7.0 (3.3-10.6)	
II–CENTRAL	46.5	47.3 (42.3-52.3)		6.7	7.0 (3.8-10.1)	
III–NORTH EAST	46.8	46.8 (41.8-51.8)		8.7	9.5 (6.1-12.8)	
IV–METRO WEST	48.7	51.0 (46.4-55.6)		5.7	6.1 (3.5 - 8.7)	
V–SOUTH EAST	44.3	46.1 (41.4-50.8)		8.0	9.1 (6.1-12.2)	
VI–BOSTON	56.8	54.0 (48.7-59.3)		16.1	13.1 (9.3-16.9)	

* Confidence interval presented is for the crude (age specific) rate in the previous column.

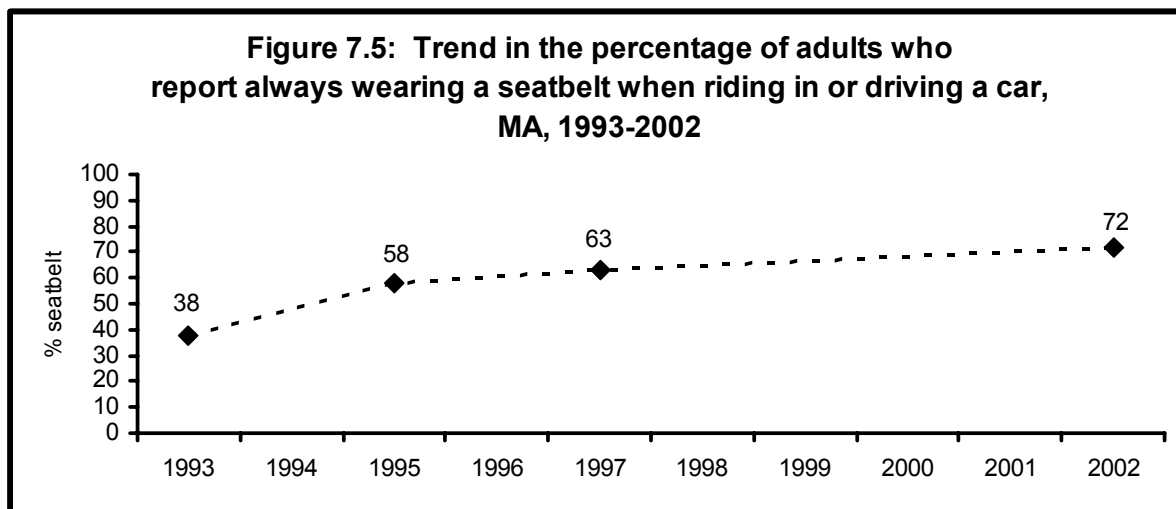
** White, Black and Asian race categories refer to non-Hispanic.

Section 8.4: Seatbelt Use

All respondents were asked how often they wore a seatbelt when driving or riding in a car. Presented here is the percentage of adults who reported that they always wore a seatbelt when driving or riding in a car.

SEATBELT USE (Table 8.4)

- 72% of Massachusetts adults reported that they always wore a seatbelt when riding in a car
- Women were more likely to report wearing seatbelts than men
- Adults ages 18-24 were least likely to report that they always wore a seatbelt and adults over age 75 were most likely to report that they always wore seatbelts
- Asian adults were more likely to report that they always wore seatbelts than adults in any other race-ethnicity group
- Seatbelt use increased with increasing education and income
- Seatbelt use among Massachusetts adults has increased since 1993 (Figure 8.4)



Note: Dotted line signifies year in which question was not asked.

TABLE 8.4 – SEAT BELT USE AMONG MASSACHUSETTS ADULTS, 2002

	SEAT BELT USE		
	CRUDE %	%	AGE-ADJUSTED 95% CI
OVERALL	72.0	71.9	(70.6-73.3)
GENDER			
MALE	65.2	65.1	(63.0-67.3)
FEMALE	78.1	77.9	(76.3-79.5)
AGE GROUP			
18–24	65.5		(60.4-70.6)*
25–34	73.4		(70.4-76.4)*
35–44	73.2		(70.6-75.9)*
45–54	71.2		(68.2-74.3)*
55–64	71.2		(67.6-74.8)*
65–74	74.5		(70.7-78.3)*
75 AND OLDER	75.2		(71.1-79.2)*
RACE-ETHNICITY**			
WHITE	72.0	71.8	(70.3-73.2)
BLACK	61.0	60.6	(52.9-68.4)
HISPANIC	74.3	76.5	(71.8-81.2)
ASIAN	83.4	85.4	(78.5-92.4)
EDUCATION			
< HIGH SCHOOL	60.7	60.3	(55.2-65.4)
HIGH SCHOOL	64.5	63.6	(60.7-66.5)
COLLEGE 1–3 YRS	70.5	70.9	(68.3-73.5)
COLLEGE 4+ YRS	80.3	79.7	(77.8-81.7)
HOUSEHOLD INCOME			
<\$25,000	67.6	67.3	(64.0-70.6)
\$25–34,999	67.0	66.8	(62.3-71.2)
\$35–49,999	68.7	68.5	(64.8-72.2)
\$50–74,999	70.3	70.4	(66.7-74.1)
\$75,000+	76.8	77.6	(74.8-80.3)
REGION			
I–WESTERN	74.2	73.9	(70.3-77.4)
II–CENTRAL	72.4	72.5	(69.1-75.9)
III–NORTH EAST	68.2	68.0	(64.8-71.2)
IV–METRO WEST	77.8	77.6	(74.8-80.4)
V–SOUTH EAST	67.4	67.3	(64.1-70.4)
VI–BOSTON	72.2	72.6	(69.1-76.2)

* Confidence interval presented is for the crude (age specific) rate in the previous column.

** White, Black and Asian race categories refer to non-Hispanic.

Section 8.5: Sexual Assault

Respondents ages 18-59 were asked if they had ever been sexually assaulted. Sexual assault was defined as any unwanted sexual contact. Sexual assault is presented separately for women and men.

EVER SEXUALLY ASSAULTED, WOMEN (Table 8.5)

- 23% of women reported that they had ever been sexually assaulted
- Black and White women were more likely to report that they had ever been sexually assaulted than Hispanic and Asian women
- Women under 40 years of age were less likely to report that they had ever been sexually assaulted than women 40-59 years of age
- Women with any college education were more likely to report that they had ever been sexually assaulted than women with no college education
- Women in the Western and Metro West regions of the state were more likely to report that they had ever been sexually assaulted than women in other regions of the state

EVER SEXUALLY ASSAULTED, MEN (Table 8.5)

- 7% of men reported that they had ever been sexually assaulted
- Men under 40 years of age were less likely to report that they had ever been sexually assaulted than men 40-59 years of age
- Hispanic men were more likely to report that they had ever been sexually assaulted than men in other race-ethnicity groups
- Men with a household income below \$25,000 were more likely to report ever having been sexually assaulted than men with a higher household income
- Men living in the Central and Metro West regions of the state were less likely to report having ever been sexually assaulted than men living in other regions of the state

TABLE 8.5 – SEXUAL ASSAULT AMONG MASSACHUSETTS ADULTS AGES 18-59, 2002

	EVER SEXUALLY ASSAULTED, WOMEN			EVER SEXUALLY ASSAULTED, MEN		
	CRUDE %	AGE-ADJUSTED % 95% CI		CRUDE %	AGE-ADJUSTED % 95% CI	
OVERALL	22.6	22.6 (20.6-24.6)		7.0	7.0 (5.6 - 8.3)	
GENDER						
MALE				7.0	7.0 (5.6 - 8.3)	
FEMALE	22.6	22.6 (20.6-24.6)				
AGE GROUP						
18–29	21.2	(17.1-25.4)*		5.0	(2.4 - 7.6)*	
30-39	20.8	(17.5-24.1)*		5.5	(3.3 - 7.7)*	
40-49	25.2	(21.4-29.0)*		9.7	(6.7-12.7)*	
50-59	23.4	(19.0-27.8)*		8.1	(5.3-11.0)*	
RACE-ETHNICITY**						
WHITE	23.3	23.2 (20.9-25.4)		6.9	6.8 (5.3 - 8.3)	
BLACK	24.4	23.2 (13.8-32.5)		7.3	5.7 (0.1-11.3)	
HISPANIC	16.6	15.6 (10.8-20.3)		8.1	7.3 (2.4-12.1)	
ASIAN	17.7	22.1 (6.8-37.3)		3.0	2.1 (0.4 - 9.9)	
EDUCATION						
< HIGH SCHOOL	19.5	17.6 (9.7-25.5)		7.6	7.7 (2.1-13.4)	
HIGH SCHOOL	18.1	18.3 (14.4-22.2)		5.8	5.5 (3.3 - 7.8)	
COLLEGE 1–3 YRS	23.7	24.1 (20.3-27.8)		7.2	7.6 (4.7-10.4)	
COLLEGE 4+ YRS	24.5	24.5 (21.5-27.5)		7.5	7.5 (5.3 - 9.7)	
HOUSEHOLD INCOME						
<\$25,000	24.9	24.8 (20.2-29.3)		10.8	11.9 (6.6-17.1)	
\$25–34,999	24.5	24.7 (18.4-31.0)		8.3	8.4 (3.4-13.3)	
\$35–49,999	24.1	24.1 (19.0-29.2)		7.6	7.8 (4.6-11.1)	
\$50–74,999	23.9	23.2 (18.5-27.8)		4.7	4.5 (2.0 - 7.1)	
\$75,000+	22.3	22.1 (17.8-26.4)		7.1	6.6 (4.5 - 8.7)	
REGION						
I–WESTERN	27.1	26.7 (21.0-32.4)		9.4	9.5 (5.6-13.3)	
II–CENTRAL	14.9	14.6 (10.6-18.6)		5.5	5.4 (2.4 - 8.4)	
III–NORTH EAST	19.8	19.5 (15.2-23.9)		7.2	7.3 (4.3-10.4)	
IV–METRO WEST	28.0	28.0 (23.4-32.6)		5.7	5.9 (2.9 - 8.9)	
V–SOUTH EAST	21.8	21.7 (17.2-26.1)		8.0	7.6 (4.5-10.7)	
VI–BOSTON	21.0	21.9 (17.1-26.8)		6.5	6.8 (2.7-10.9)	

* Confidence interval presented is for the crude (age specific) rate in the previous column.

** White, Black and Asian race categories refer to non-Hispanic.

APPENDIX

**SUMMARY OF 2002 BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM RESULTS:
MASSACHUSETTS ESTIMATES, COMPARISON TO NATIONAL ESTIMATES, AND
HEALTHY PEOPLE (HP) 2010 OBJECTIVES**

VARIABLES	MA %	US MEDIAN¶ %	US RANGE¶ %	MA RANK§	HP 2010^ %
OVERALL HEALTH MEASURES					
FAIR–POOR HEALTH	13.3	14.7	10.4-33.0	18 TH	X
15+ POOR MENTAL HEALTH DAYS	9.2				X
15+ DAYS DEPRESSED	7.1				X
15+ DAYS PAIN	8.6				X
HEALTH CARE ACCESS AND UTILIZATION					
NO HEALTH INSURANCE	10.8*				0.0
HAVE PERSONAL DOCTOR	87.5	81.3	66.0-88.2	4 TH	85.0
DENTAL VISIT IN THE PAST YEAR	77.3	69.4	60.0-80.2	4 TH	X
6+ TEETH MISSING FROM DISEASE	17.7	17.6	10.4-33.8	28 TH	X
RISK FACTORS AND PREVENTIVE BEHAVIORS					
CURRENT SMOKER	18.9	23.0	12.8-32.6	4 TH	12.0
HEAVY SMOKER	2.2				X
QUIT ATTEMPT PAST YEAR	60.4	56.4	48.3-68.0	10 TH	75.0
PLAN TO QUIT SMOKING	33.8				X
LIVE IN HOUSE WHERE SMOKING IS NOT ALLOWED	68.3				X
SUPPORT BAN ON SMOKING IN RESTAURANTS	57.3				X
BINGE DRINKING	18.3	16.1	7.9-24.9	44 TH	6.0
HEAVY DRINKING	7.7	5.8	2.8-8.7	48 TH	X
OVERWEIGHT (BASED ON HP 2010)	54.6	58.8	52.7-63.7	6 TH	X
OBESE	18.3	22.0	16.5-27.6	6 TH	15.0
ANY EXERCISE IN PAST MONTH	79.2	75.8	53.2-85.0	13 TH	70.0
REGULAR PHYSICAL ACTIVITY	50.8				
5+ SERVINGS FRUIT AND VEGETABLES PER DAY	29.7				
FLU SHOT IN LAST YEAR (50-64)	39.2	38.5	15.9-49.0	31 ST	X
FLU SHOT IN LAST YEAR (65+)	72.6	68.6	35.4-76.6	12 TH	90.0
EVER HAD PNEUMONIA VACCINATION (65+)	63.4	63.0	25.1-72.5	23 RD	90.0

¶ The US median percentage and range are based on data for all fifty states, the District of Columbia, and Puerto Rico.

§ Based on lowest risk or healthiest behavior: 1st = best, 52nd = worst.

^HP 2010 = Healthy People 2010 Objectives.

X No applicable objective.

*This estimate of the uninsured is based on the CDC core insurance question asked by all states. Additional Massachusetts information has been left out of this calculation, so that Massachusetts could be compared with other states. Please see page 18.

**SUMMARY OF 2002 BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM RESULTS:
MASSACHUSETTS ESTIMATES, COMPARISON TO NATIONAL ESTIMATES, AND
HEALTHY PEOPLE (HP) 2010 OBJECTIVES, CONTINUED**

VARIABLES	MA %	US MEDIAN¶ %	US RANGE¶ %	MA RANK§	HP 2010^ %
CHRONIC HEALTH CONDITIONS					
DIABETES	5.8	6.6	3.5-10.5	11 TH	2.5
EVER HAD ASTHMA	12.9	11.8	8.6-19.6	42 ND	X
CURRENT ASTHMA	8.9	7.7	5.8-11.5	45 TH	X
HAVE DISABILITY OR LIMITATION	21.1				X
DISABILITY/LIMITED NEED HELP WITH	4.8				X
CANCER SCREENING					
BLOOD STOOL TEST IN PAST 2 YRS (50 +)	37.7	30.0	0.8-43.5	7 TH	50.0
SIGMOIDOSCOPY/COLONOSCOPY IN PAST 5 YEARS (50+)	46.7	39.7	25.2-54.9	8 TH	X
PSA BLOOD TEST IN PAST YEAR (MEN, 50 +)	57.6	55.7	38.1-65.2	16 TH	X
DRE IN THE PAST YEAR (MEN, 50+)	62.3	52.6	33.8-69.2	4 TH	X
MAMMOGRAM IN PAST 2 YEARS (40+)	83.2	76.0	67.0-85.4	3 RD	
PAP SMEAR IN PAST 3 YEARS	85.1**	83.7	75.6-89.5	17 TH	90.0
WOMEN'S HEALTH					
SUFFICIENT CALCIUM INTAKE	41.8				X
OSTEOPOROSIS (45+)	16.6				X
UNPLANNED PREGNANCY (18-44)	24.9				X
USE BIRTH CONTROL (18-44)	84.7				X
OTHER TOPICS					
EVER TESTED FOR HIV (18-64)	47.0	44.1	29.0-67.4	15 TH	X
TESTED FOR HIV IN PAST YEAR (18-64)	16.6	12.1	7.2-32.7	21 ST	X
FIREARMS IN OR AROUND HOME	12.9	41.4	5.3-63.1	5 TH	X
EVER USED ILLICIT DRUGS (18-64)	47.9				X
USED ILLICIT DRUGS IN PAST 30 DAYS (18-64)	8.1				2.0
SEAT BELT USE	72.0	76.6	52.4-92.6	15 TH	
SEXUAL ASSAULT (WOMEN 18-59)	22.6				X
SEXUAL ASSAULT (MEN 18-59)	7.0				X

¶ The US median percentage and range are based on data for all fifty states, the District of Columbia, and Puerto Rico.

§ Based on lowest risk or healthiest behavior: 1st = best, 52nd = worst.

^ HP 2010 = Healthy People 2010 Objectives.

X No applicable objective.

** MABRFSS numbers for cervical cancer screening differ from those from the CDC, because women who have had a hysterectomy are removed from the analysis. In calculations done by CDC these women are included. . This accounts for the difference in estimates published by MA BRFSS and the CDC.

BRFSS METHODOLOGY

The Massachusetts BRFSS is a random–digit–dial (RDD) telephone survey of non–institutionalized Massachusetts adults residing in households with telephones. In 2002, the Massachusetts BRFSS was conducted by ORC Macro, Inc.

The sampling of the survey population involved a list–assisted, stratified RDD sampling frame, which assures that Massachusetts households with telephone numbers assigned after publication of the current directories, as well as households with deliberately unlisted numbers, are included in the sample in appropriate proportions. This methodology is designed to more efficiently and validly reach all telephone equipped households, in order to provide population based estimates of health conditions and behaviors. Telephone numbers were randomly selected, and multiple attempts were made to reach each household. To be eligible to participate in the survey, a household had to be occupied by at least one adult ages 18 or older.

Institutions, group quarters, and temporary residences lived in for less than one month per year were ineligible. In order to provide estimates of health at the local level, additional interviews were conducted among adults residing in the following major cities in the Commonwealth: Boston, Fall River, Lawrence, Lowell, New Bedford, Springfield and Worcester.

The BRFSS is a random –digit–dial telephone survey of Massachusetts adults 18 and older.

Once a household was contacted, one adult was randomly selected to complete the interview. No proxy respondents or substitutions were allowed in the event that the selected adult was unwilling or unable to complete the interview for any reason such as language

In 2002, 7,429 adults participated in the BRFSS. All data are weighted, and provide population-based estimates of health among Massachusetts adults.

barriers, disability, or lack of availability. In addition to English, the survey was conducted in Spanish and Portuguese. In 2002, 7,429 adults completed the survey; among those determined to be eligible, interviews were completed with 66% of the potential respondents. Data were weighted to reflect the probability of selection and differential participation by sex and age. All analyses presented in this report were conducted using SUDAAN

and SAS software and are considered estimates for the non-institutionalized adult population in Massachusetts. For each estimate section we include a 95% confidence interval in order to assess the variability of the data. Since the survey represents a random sample of the population, and not a complete census, 95% confidence intervals provide a range of values that most likely contain the true percent estimates for the population.

There are some limitations that should be considered when interpreting results from the BRFSS. Households that do not have a telephone do not have the opportunity to participate in the survey. Although only 0.5% of Massachusetts households lack a telephone, almost 4% of households living below poverty do not have a telephone based on 2000 Census supplemental survey.

In addition, although households were telephoned on repeated occasions, interviewers were not always able to reach the randomly selected adult in the household. In addition, some adults contacted did not agree to participate in the survey. To the degree that respondents who participated in the survey differed significantly from those not included in the survey, bias is present in the results. The weighting of the data partially takes into account this non–response.

All data collected by the BRFSS are based on self-report from the respondents. By its nature, self-reported data may be subject to error for several reasons. An individual may have difficulty remembering events that occurred a long time ago or the frequency of certain behaviors. Some respondents may over-report socially desirable behaviors, while underreporting behaviors they perceive to be less acceptable. Finally, because the BRFSS surveys a randomly selected sample of Massachusetts adults, these results may differ to some extent from another random sample simply due to chance. Despite the limitations described above, the BRFSS is the only survey of health risks and behaviors that represents the general Massachusetts population.

TECHNICAL NOTES

Age-adjustment: Age-adjustment is a form of standardization. It is one tool used to remove the influence of an extraneous variable (a confounder) on the association between an exposure and outcome. For example, we may be interested in assessing whether adults

Age-adjusted rates are used to compare an outcome, such as tooth decay, between two groups of people of different ages, such as adults with and without diabetes.

with diabetes are more likely than those without diabetes to have 6 or more teeth missing due to tooth decay or gum disease (outcome). However, we know that in our population, adults with diabetes are older than adults without diabetes and older adults are also more likely to have teeth missing due to tooth decay or gum disease. Thus, we would like to remove the confounding effect of age, and to understand the underlying association between diabetes and oral health, independent of age. In standardization, we stratify the data by the confounder, and calculate the

proportion of people with the outcome within each stratified group, and we do this separately for the exposed and the unexposed group. In the above example, we would stratify the data and calculate the proportion of individuals with 6 or more teeth missing within each level of age, for the diabetes and non-diabetes groups separately. Next, we would select a standard set of weights based on the frequency distribution of the confounder for that population. For example, we could calculate the frequency distribution of age for the total population. Then we apply this standard set of weights to the stratified-specific proportions for both the exposed and the unexposed group, and then compute the weighted average proportion for the exposed and unexposed groups. In essence, standardization breaks the link between the confounder and exposure, and allows us to ask if the exposed group and unexposed group had the same level of the confounder, what would the association with the outcome be. In the above example, this translates into what is the effect of diabetes on oral health, if people with and without diabetes had the same age distribution.

In the above example, we standardized by age. However, standardization can be used to remove confounding by any extraneous variable such as gender, race, income, health status, etc. Standardization is one of the most intuitive approaches to removing confounding from data. Other commonly used tools include regression modeling and Mantel-Haenszel techniques.

Confidence Interval: The BRFSS surveys a random sample of the Massachusetts adult population and generalizes the results to estimate the true prevalence of disease or behaviors of the entire population. Two successive surveys of the same population may not yield the same estimate of a health behavior, simply due to the random selection process. For example, if we conduct two identical surveys of smoking prevalence at the same time, we may have two different estimates of smoking prevalence, even though the true underlying proportion of smokers in the population is unchanged.

The percent estimate usually provides a good approximation of the underlying truth, although there are a range of values that may be consistent with the data. This range is called a confidence interval. A 95% confidence interval can be considered to be a range of values that has a 95% chance of including the true proportion, given that the data were not biased in any way. The confidence interval describes the precision of an observed estimate of the underlying proportion, with a wider interval indicating less certainty

A 95% confidence interval can be considered a range of values that has a 95% chance of including the true proportion.

about this estimate. The main factor affecting the width of the confidence interval is the number of respondents.

Healthy People 2010 Objectives: *The Healthy People 2010: National Health Promotion and Disease Prevention Objectives* are a national agenda that aim to significantly improve the health of Americans in the decade preceding the year 2010. Developed through an extensive governmental, professional, and public national process, Healthy People 2010

Healthy People 2010 seeks to: increase quality and years of healthy life, and to reduce health disparities

defined two broad national goals: to increase quality and years of healthy life and to eliminate health disparities. These goals were supported by 476 specific objectives that set priorities for public health during the first decade of the 2000's. The objectives were organized into 28 priority areas such as tobacco, overweight, and diabetes. For each

objective, a numeric national target for the year 2010 was set. For each health status indicator in this report that has a corresponding Healthy People 2010 Objective, the year 2010 target is shown in the summary table at the end of the document (see pages 87-88).

Median: The median is the middle observation for a set of observations (i.e. the value that divides the frequency distribution into halves). It is also equal to the 50th percentile. For example, the US median represents the point at which half of the states have a higher estimate than the median and half have a lower estimate.

Massachusetts Rank: The Massachusetts rank is an ordering that shows where Massachusetts stands in relation to all of the other states. The lower the ranking (1 being the lowest), the better the state's standing with regards to the particular variable of interest.

KEY LINKS

Health Survey Program: The Health Survey Program is part of the Center for Health Information, Statistics, Research and Evaluation at the Massachusetts Department of Public Health. Additional information about the program including other state publications can be found on our website located at <http://www.state.ma.us/dph/bhsre/cdsp/brfss/brfss.htm>.

MassCHIP: Data on selected variables from the Massachusetts BRFSS are available through the Massachusetts Community Health Information Profile (MassCHIP), an Internet-accessible information service available from the Massachusetts Department of Public Health. Information about how to register as a MassCHIP user is available at: <http://masschip.state.ma.us/>.

National BRFSS data: There is a national BRFSS website, located on the Centers for Disease Control and Prevention website, which provides information about the BRFSS, includes listings of publications and questionnaires, provides national data on selected variables, and includes links to relevant websites. The national BRFSS website is located at: <http://www.cdc.gov/brfss/>. A downloadable document that describes all aspects of the BRFSS and survey methodology is located at <http://www.cdc.gov/nccdphp/brfss/pdf/userguide.pdf>.

Healthy People 2010 website: The Healthy People Objectives has been coordinated by the U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Information on the health prevention goals, priority areas, measuring progress in the health indicators and other pertinent information can be found on the Healthy People 2010 homepage at: <http://www.health.gov/healthypeople/>.